UNITED STATES MARINE CORPS
MARINE CORPS SYSTEMS COMMAND
2200 LESTER STREET
QUANTICO, VIRGINIA 22134-5010

IN REPLY REFER TO:
5720
DON-USMC-2018-001416
17 Nov 17

EMAILED TO: billk@marvinland.com

Marvin Land Systems
Mr. Bill Kim
261 W. Beach Ave
Inglewood CA 90302

SUBJECT: DON-USMC-2018-001416

Dear Mr. Kim:

This letter responds to your Freedom of Information Act request dated November 15, 2017, requesting a copy of Technical Manual TM 0726C-10/1.

The requested document is enclosed.

No fees assessed.

If at any time you are not satisfied that a diligent effort was made to process your request, you may file an administrative appeal with the Assistant to the General Counsel (FOIA) at:

Department of the Navy
Office of the General Counsel
ATTN: FOIA Appeals Office
1000 Navy Pentagon Room 4E635
Washington DC 20350-1000

Any questions concerning this matter should be directed to Mrs. Bobbie Cave at (703) 432-3934 or bobbie.cave@usmc.mil.

Sincerely,

Bobbie Cave

for Lisa L. Baker
Counsel

TM 07268C-10/1

U.S. MARINE CORPS TECHNICAL MANUAL

OPERATOR'S MANUAL
(WITH COMPONENTS LIST)

FOR

ASSAULT AMPHIBIOUS VEHICLE, COMMAND, MODEL 7A1 RAM/RS (SUPPLEMENT TO TM 09674A-10/3)

COMMAND, AAVC7A1, 07268C (2350-01-458-7318)

THIS PUBLICATION SUPERSEDES TM 07268B-10/1D DATED JULY 2008 AND TM 07268C-10/1 PRELIMINARY DATED OCTOBER 2010.

DISTRIBUTION C: DISTRIBUTION AUTHORIZED TO U.S. GOVERNMENT AGENCIES AND THEIR CONTRACTORS ONLY FOR THE ADMISTRATION AND OPERATIONAL PURPOSES AS DETERMINED. OTHER REQUESTS FOR THIS DOCUMENT SHALL BE REFERRED TO: COMMANDANT OF THE MARINE CORPS (CODE ARDE), HEADQUARTERS, U.S. MARINE CORPS, WASHINGTON, D.C. 20380-0001.

DESTRUCTION NOTICE: DESTROY BY ANY METHOD THAT WILL PREVENT DISCLOSURE OF CONTENTS OR RECONSTRUCTION OF THE DOCUMENTS.

FOR OFFICIAL USE ONLY

OCTOBER 2012
PCN 184 072631 00

DEPARTMENT OF THE NAVY
Headquarters, U.S. Marine Corps
Washington, DC 20380-0001

31 October 2012

1. This Technical Manual (TM), authenticated for Marine Corps use and effective upon receipt, provides Operator's Instructions with Components List for the Assault Amphibious Vehicle, Command, Model 7A1, RAM/RS (AAVC7A1 RAM/RS) as determined by TM 07268C-10/1, NSN: 230-01-458-7318. This manual is a supplement to TM 09674A-10/3.

2. TM 07268B-10/1D dated July 2008 and TM 07268C-10/1, Preliminary dated October 2010 are hereby superseded for Marine Corps use.

3. Safety issues related to the information contained in this manual should be reported to the Marine Corps Systems Command Safety Office at MCSC_Safety@usmc.mil. All significant safety hazards that have the potential to affect other commands and require widespread dissemination shall be reported via a Hazard Report per MCO P5102.1B.

4. Submit notice of discrepancies or suggested changes on a NAVMC 10772 Form. The NAVMC Form can be submitted using either of the following:

a. The preferred method of submittal is using https://portal.logcom.usmc.mil/sites/pubs URL which will allow direct entry to LOGCOM Share Point Pubs site (LOGCOM SharePoint access and CAC required) where the form (Part I or Part II) can be filled out and submitted to the NAVMC database. Problems or questions regarding the NAVMC 10772 program should be reported by calling DSN 567-7628 or DSN 567-5017 (Commercial number is (229) 639-7628 or (229) 639-5017).

b. The alternate method of submittal does not require a Common Access Card (CAC) to access the form. Click on http://navalforms.daps.dla.mel/web/public/forms, select the "Keyword Search" button, enter "10772" in the Search Criteria box. Under "type" click on the "download page" button. Click on PDF icon. Enter user data in the appropriate fields. Must have users contact information block filled with Unit address and telephone number. Click on the "Envelope" icon in the tool bar. Select "Send Copy", click on "OK". When the PDF document is created, an Outlook Email screen will open with the .PDF as an attachment. On the TO: line type, SMB.LOG.TECH.Pubs.fct@usmc.mil. In the body of the email, type any additional information you wish to provide. Click "SEND".

c. In addition to electronic submittal of the NAVMC form via the above links, forward an informational copy (cc:) or mail a paper copy to the Project Officer at the following address: PM AAA, PEO LS, USMC, Attn: PMAAV, 2200 Lester Street, Quantico, VA 22135-6050.

5. Disposition for failed items will be furnished to the user based on the PQDR. PQDRs shall be submitted via the Product Data Reporting and Evaluation Program (PDREP) at: http://www.nslcptsmh.navsea.navy.mil/pdrep/pdrep.htm. The PQDR form is also available at the website http://www.logcom.usmc.mil/pqdr and may be forwarded to the PQDR Screening Point via e-mail attachment to mailto: mbmatcompqdrs@matcom.usmc.mil.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS

OFFICIAL

K. M. MOORE
Colonel, USMC
Program Manager, AAA

DISTRIBUTION: 184 072631 00

RECORD OF CHANGES

Change No.	Date	Title or Brief Description	Entered By

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont.)

LIST OF ILLUSTRATIONS

LIST OF TABLES

SAFETY SUMMARY

1. GENERAL SAFETY INSTRUCTIONS.

This manual describes physical and chemical processes which may cause injury or death to personnel, or damage to equipment if not properly followed. This safety summary includes general safety precautions and instructions that must be understood and applied during operation and maintenance to ensure personnel safety and protection of equipment. Prior to performing any task, the WARNINGs, CAUTIONs, and NOTEs included in that task shall be reviewed and understood.

2. WARNINGS, CAUTIONS, AND NOTES.

WARNINGs and CAUTIONs are used in this manual to highlight operating or maintenance procedures, practices, conditions or statements which are considered essential to protection of personnel (WARNING) or equipment (CAUTION). WARNINGs and CAUTIONs immediately precede the step or procedure to which they apply. WARNINGs and CAUTIONs consist of four parts: heading (WARNING, CAUTION), a statement of the hazard, minimum precautions, and possible result if disregarded. NOTEs are used in this manual to highlight operating or maintenance procedures, practices, conditions or statements which are not essential to protection of personnel or equipment. NOTEs may precede or follow the step or procedure, depending upon the information to be highlighted. The headings used and their definitions are as follows.

WARNING

Highlights an essential operating or maintenance procedure, practice, condition, statement, etc., which, if not strictly observed, could result in injury to, or death of, personnel or long term health hazards.

CAUTION

Highlights an essential operating or maintenance procedure, practice, condition, statement, etc., which, if not strictly observed, could result in damage to, or destruction of, equipment or loss of mission effectiveness.

NOTE

Highlights an essential operating or maintenance procedure, condition, or statement.

3. SAFETY PRECAUTIONS.

The following safety precautions shall be observed while performing procedures in this manual.

- Dangerous voltages are present at system connectors. Ensure power is OFF prior to connecting or disconnecting cables.
- Do not wear metal frame glasses, rings, watches,or other metal jewelry while working on electronic equipment.
- Some cleaning materials specified herein are flammable and/or toxic. Keep away from open flame or other ignition sources. Provide adequate ventilation and avoid skin/eye exposure.
- Cleaning with compressed air can create airborne particles that may enter eyes or penetrate skin. Pressure shall not exceed 30 psig. Wear goggles. Do not direct compressed air against skin.

SAFETY SUMMARY (Cont.)

WARNING

YOUR VEHICLE GIVES MOBILITY AND PROTECTION TO PERSONNEL. KEEP IT IN THE BEST OPERATIONAL CONDITION POSSIBLE. FAILURE TO MAINTAIN AND SERVICE YOUR VEHICLE PROPERLY COULD RESULT IN VEHICLE BREAKDOWN AT A CRUCIAL TIME CAUSING LOSS OF THE VEHICLE AND PERSONNEL. (Page: 1–1)

WARNING

PLACE VEHICLE MASTER SWITCH AND THE APU POWER SWITCH IN THE OFF POSITION BEFORE PERFORMING MAINTENANCE ON DC ELECTRICAL SYSTEM OR EQUIPMENT. (Page: 3–1)

SAFETY SUMMARY (Cont.)

CAUTION

Failure to conduct proper preventive maintenance checks will result in serious equipment damage or failure. (Page: 2–17)

CAUTION

Open APU exhaust cover before operating APU engine. (Page: 2–24)

CAUTION

Check coolant level before operation. Failure to maintain proper coolant level will result in damage to the APU. (Page: 2–26)

CAUTION

To prevent excessive current draws from batteries during startup ensure that all circuits breakers on the DC PDU are off prior to startup. (Page: 2–29)

CAUTION

The RHDDC access door is sealed with a D–ring gasket. Take care not to tear or damage this gasket when opening or closing the access door. (Page: 2–40)

CAUTION

Laptop docking station pins can be damaged easily during installation. Use care when attaching laptop to prevent pin damage. (Page: 2–45)

CAUTION

Do not slide the power switch repeatedly. Sliding the power switch repeatedly can damage the hard drive. (Page: 2–45)

CAUTION

Charging the UPS battery pack without the engine running will drain the vehicle batteries. (Page: 3–3)

CAUTION

Do NOT immerse any part of the device in water. Do not use ketones (MEK, acetone, etc.). Avoid using abrasives on the device. (Page: 3–8)

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. SCOPE. This manual contains the information needed to operate and maintain the equipment and systems unique to the Assault Amphibious Vehicle, Command, 7A1 (AAVC7A1). This supplements the information found in TM 09674A-10/3.

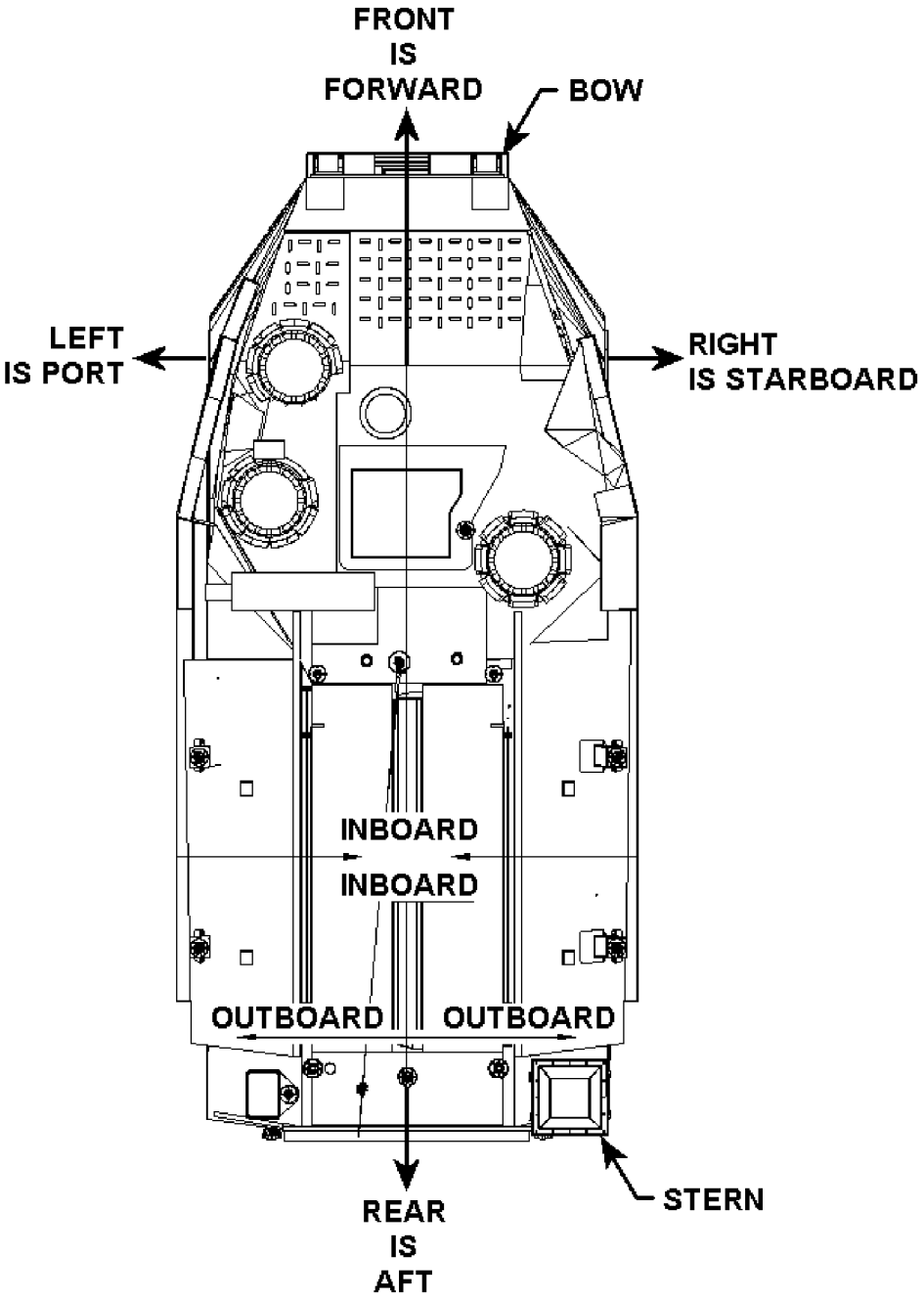
WARNING

YOUR VEHICLE GIVES MOBILITY AND PROTECTION TO PERSONNEL. KEEP IT IN THE BEST OPERATIONAL CONDITION POSSIBLE. FAILURE TO MAINTAIN AND SERVICE YOUR VEHICLE PROPERLY COULD RESULT IN VEHICLE BREAKDOWN AT A CRUCIAL TIME CAUSING LOSS OF THE VEHICLE AND PERSONNEL.

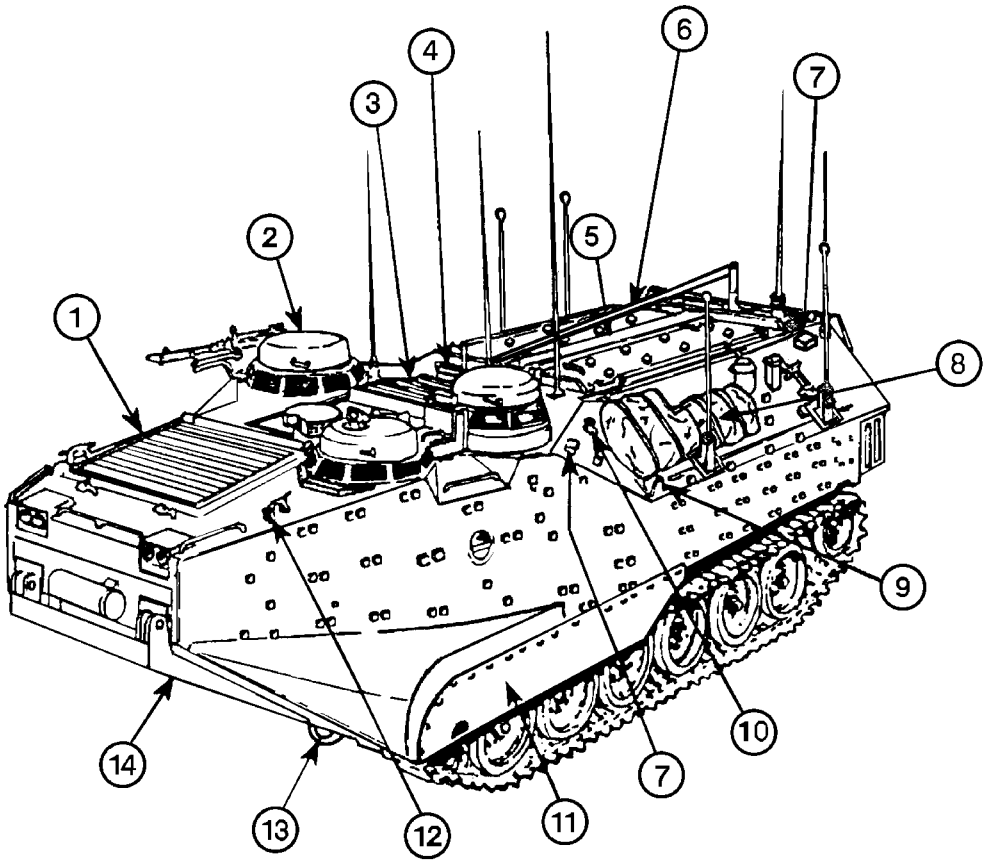
1-2. DESCRIPTION. The AAVC7A1 (see Figures 1-1 through 1-4) is an armored, amphibious full-tracked landing vehicle. The vehicle communication system consists of eight (8) very high frequency (VHF) receiver transmitters, one (1) ultra high frequency (UHF) Line of Sight (LOS) receiver-transmitter, one (1) UHF Satellite Communications (SATCOM) receiver transmitter and one (1) high frequency (HF) receiver. Communication inside the vehicle is conducted via the Tactical Operations Intercommunication's Network (TOCNET). The vehicle has the advantage of a mobile field headquarters command communication center with vehicle and Command Communications System (CCS) equipment. It also has voice security equipment to scramble transmission and unscramble reception embedded in radio receiver transmitters for secure communications.

The vehicle has an auxiliary power unit (APU) that mounts on the bow in the engine compartment. The main purpose of the APU is to keep the vehicle batteries at full charge. This is needed to operate the command communication equipment when the engine is not running. The APU also aids in cold weather starting of the engine by keeping the batteries at peak voltage.

1-3. LOCATIONAL TERMS. The naval term port and starboard are used to designate the left and right sides of the vehicle. The naval terms forward and aft are used to designate the front and rear of the vehicle, and inboard and outboard are used to distinguish between the center and outer points of the vehicle. See figure below for sides and areas as viewed when standing at rear of vehicle and facing forward.



1-3. LOCATIONAL TERMS. (Cont.)

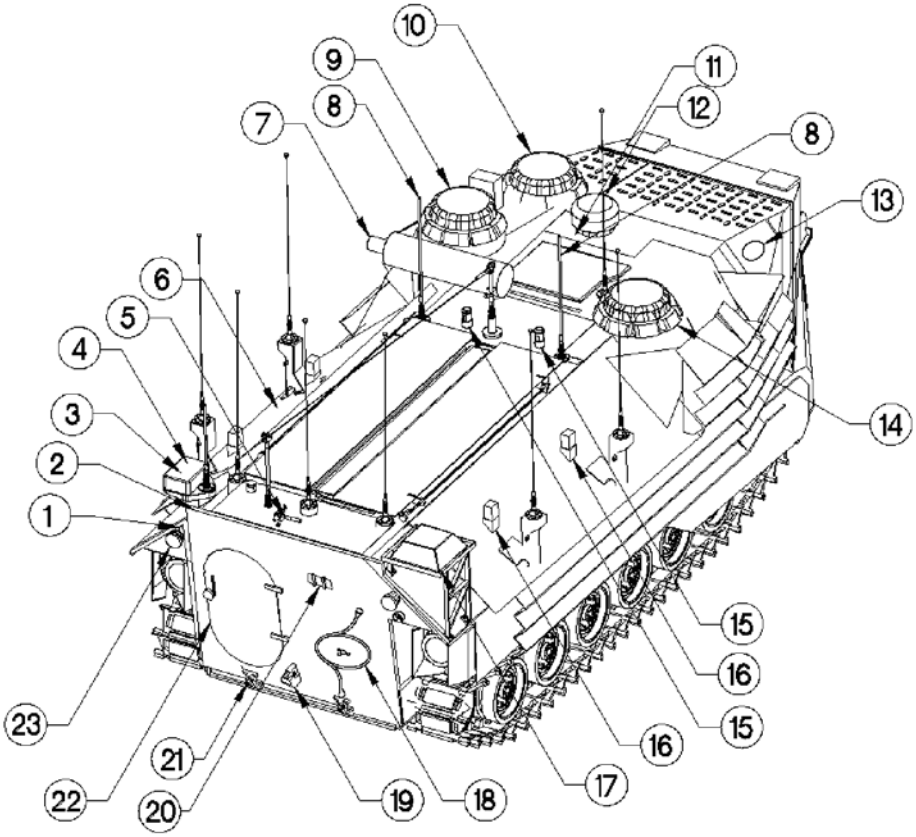


LEGEND

1. Air intake grille
2. Vehicle commander's hatch
3. Air exhaust grille
4. Engine compartment ventilation air outlet
5. Cargo hatch center beam
6. Cargo hatch cover (2)
7. Bilge outlet (4)
8. Camouflage net
9. Fire extinguisher outside release handle
10. Personnel heater exhaust outlet
11. Track shroud (2)
12. Mooring cleat (4)
13. Towing eye (2)
14. Bow plane

Figure 1-1. AAVC7A1 - Port Bow View.

1-3. LOCATIONAL TERMS. (Cont.)



LEGEND

1. Horn
2. Ramp
3. Antenna BFT
4. Antenna DAGR
5. Sea tow quick-release
6. Fuel fill ballistic cover
7. Engine exhaust outlet
8. EPLRS antenna (2)
9. Mission Commander's hatch
10. Driver's hatch
11. Ventilator-aspirator valve
12. Cooling system filler cap ballistic cover
13. Auxiliary power unit exhaust port
14. Direct vision block (9)
15. Iridium antenna
16. Cargo hatch support (4)
17. UHF SATCOM antenna
18. Tow cable stowage
19. Tow pintle
20. Ramp vision block
21. Rowing eye and ramp hinge (2)
22. Ramp personnel door
23. Taillight-stoplight (2)

Figure 1-2. AAVC7A1 - Starboard Aft View.

1-3. LOCATIONAL TERMS. (Cont.)

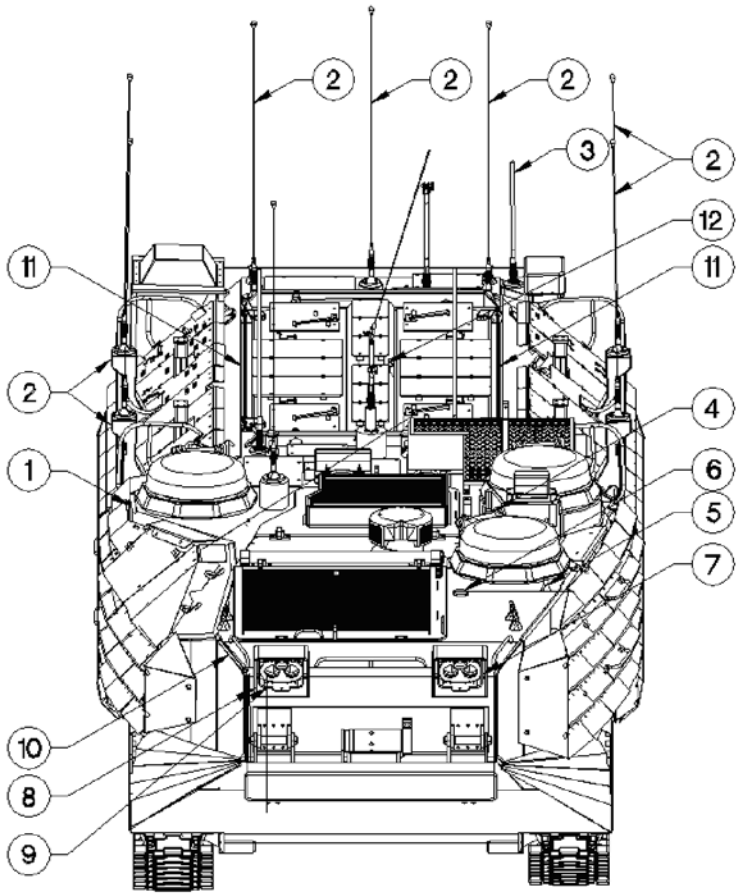
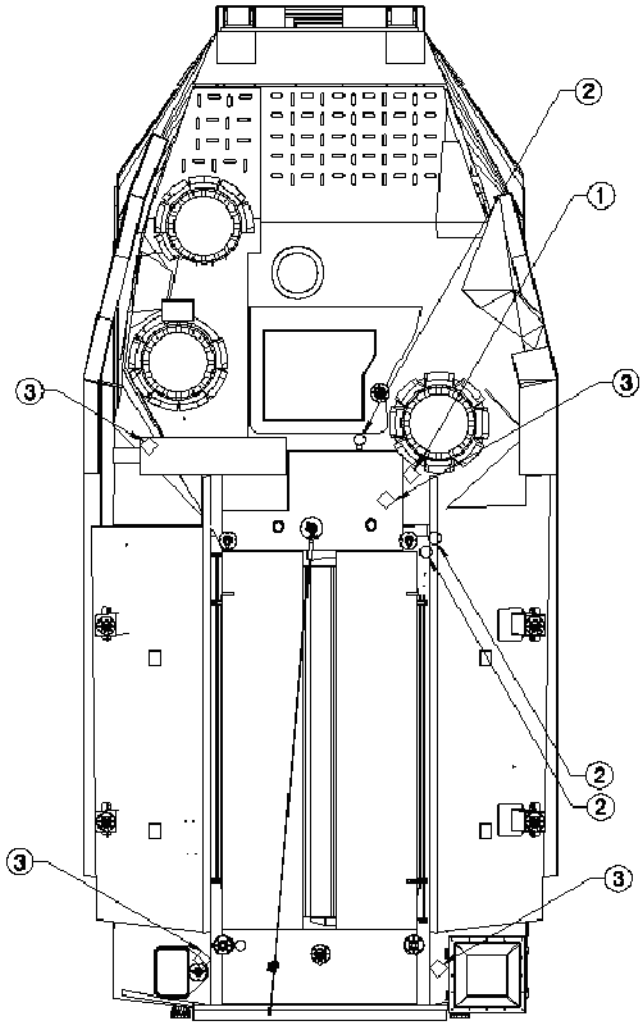


Figure 1-3. AAVC7A1 - Forward View.

LEGEND

1. Machine gun pintle and cover
2. AS-3916/VRC Antenna for Comm Suite (6)
3. AS-3916/VRC Antenna for Crew
4. Periscope
5. Searchlight pintle
6. Searchlight power receptacle
7. Blackout (BO) marker (2)
8. Service headlight (4)
9. Blackout (BO) light (2)
10. Handrail (3)
11. EPLRS Antenna (2)
12. HF antenna
13. UHF Antenna (Model 4266)
14. UHF SATCOM Antenna (OS-302)
15. Blue Force Situational Awareness Antenna (MT-2011)

1-3. LOCATIONAL TERMS. (Cont.)

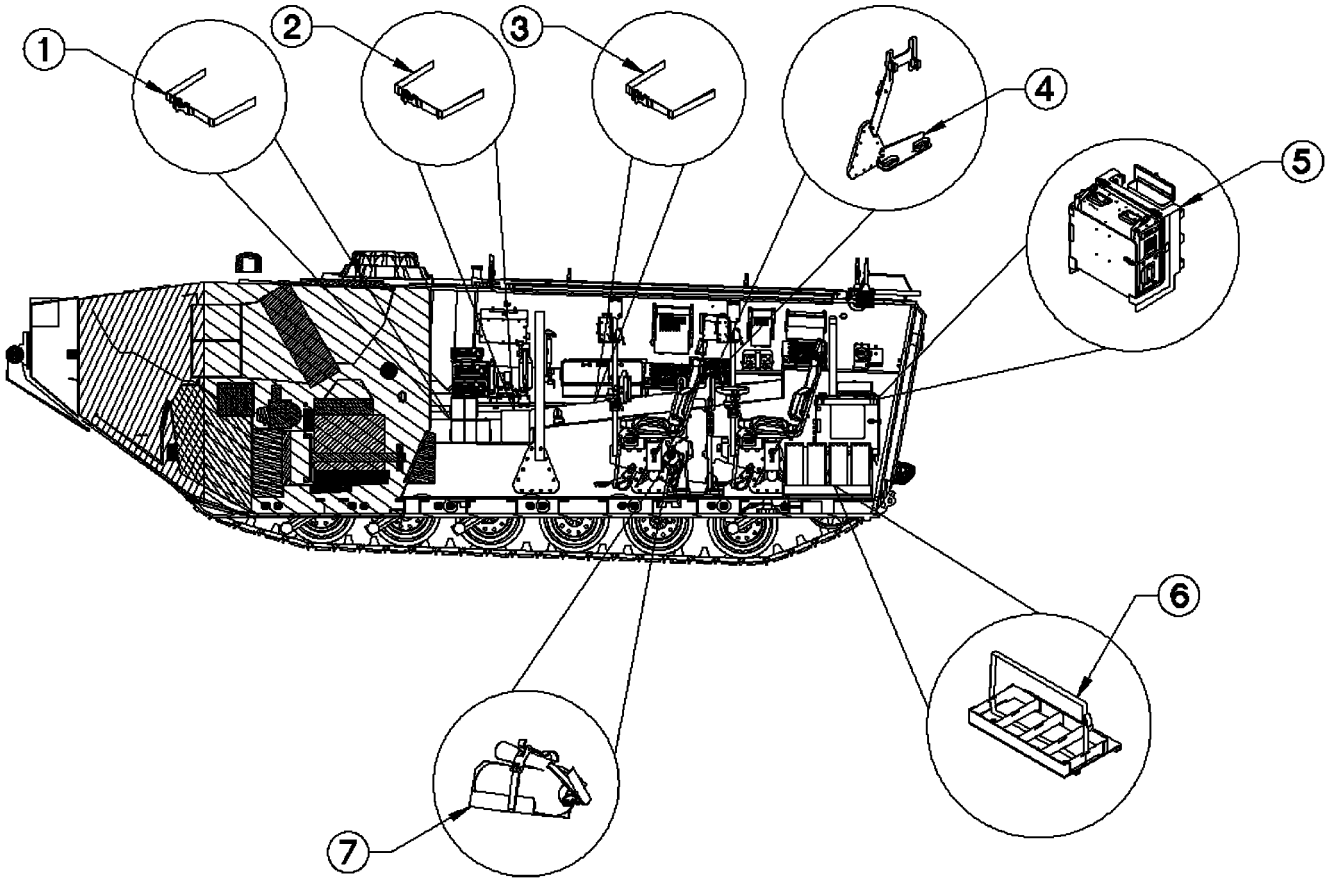


LEGEND

1. Control
2. Fire extinguisher (3)
3. Sensor (4)

Figure 1-4. AAVC7A1 - Automatic Fire Sensing and Suppression System (AFSSS).

1-3. LOCATIONAL TERMS. (Cont.)

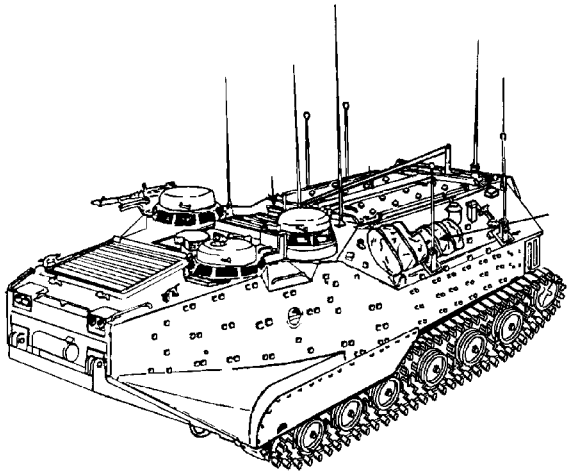


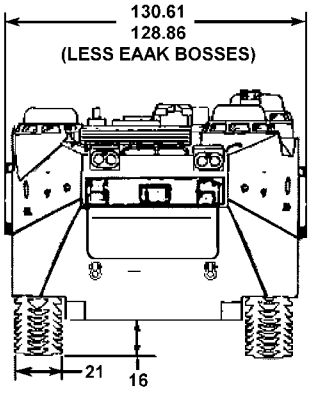
LEGEND

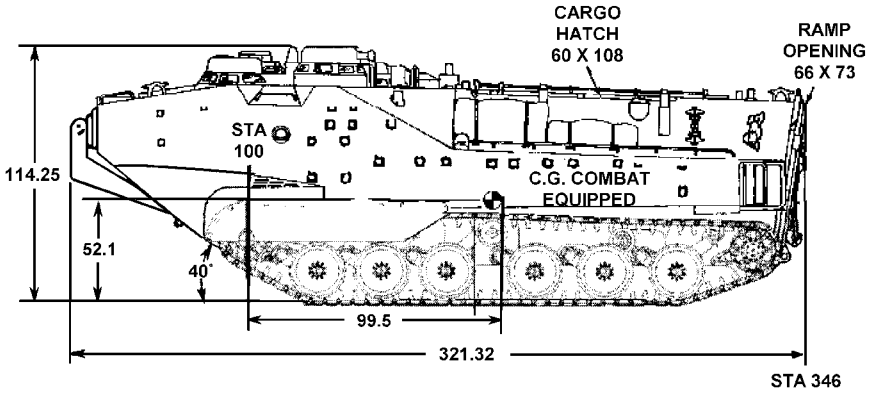
1. Strap, webbing (ammo)
2. Strap, webbing (ammo)
3. Strap, webbing (ammo)
4. Double rifle rack support
5. Uninterruptible Power Supply (UPS)
6. Water can storage mount
7. Fire extinguisher and support bracket

Figure 1-5. AAVC7A1 - Interior View - Starboard Side.

1-4. TECHNICAL DATA.







1. GENERAL.

Crew: 3

Weight:
- Unloaded: . . . . . 49,260 Pounds (With EAAK, Less Crew, Fuel, OEM, and Ammo)
- Combat Equipped: . . . . . 52,665 Pounds (With EAAK, Crew, Fuel, OEM, and Ammo)

Center of Gravity:
- Unloaded: . . . . . 52.35 Inches Above Ground, 98 Inches from Station 100.00
- Combat Equipped: . . . . . 52.1 Inches Above Ground, 99.5 Inches from Station 100.0

Mean Sea Water Draft (Combat Equipped): . . . . . 75.6 Inches (appx.)
- Freeboard at Bow (STA 34): . . . . . 26.8 Inches (appx.)
- Freeboard at Stern (STA 346): . . . . . 22.6 Inches (appx.)

Unit Ground Pressure (Combat Equipped): . . . . . 8.5 PSI (appx.)

Fuel Capacity: . . . . . 171 Gallons

1-4. TECHNICAL DATA. (Cont.)

2. PERFORMANCE.

Gross Horsepower to Weight Ratio (Combat Equipped): . . . . . 19.4 HP/Ton

Net Horsepower to Weight Ratio (Combat Equipped): . . . . . 16.7 HP/Ton

Drawbar Pull (Maximum at Stall Tractive Effort): . . . . . 34,800 (appx.) Pounds on Level, Firm Terrain

Cruising Range:
Land at 25 MPH: . . . . . 200 Miles
Water at 2600 RPM: . . . . . 7 Hours

Cruising Speed:
Land: . . . . . 20 to 30 MPH
Water: . . . . . 6 MPH

Maximum Speed Forward:
Land: . . . . . 45 MPH
Water: . . . . . 8.2 MPH

Maximum Speed Reverse:
Land: . . . . . 12 MPH
Water: . . . . . 4.5 MPH

Obstacle Ability: . . . . . 8-Foot Trench Span, 3-Foot Vertical Wall

Maximum Forward Grade (Combat Equipped): 60%

Maximum Side Slope (Combat Equipment): 40%

Ground Clearance (Combat Equipped): . . . . . 16 inches

Minimum Turning Radius:
Land: . . . . . Pivot
Water: . . . . . Pivot

Surf Ability: . . . . . Negotiate 6-Foot Plunging Surf, Cargo Loaded and Survive 10-Foot Plunging Surf Without Sustaining Mission Failure

3. ENGINE.

Make: . . . . . Cummins

Model: VTA-525

Type: . . . . . 4 cycle, 8 Cylinder, 90° Vee, Water Cooled, Turbocharged, Aftercooled

Bore: . . . . . 5.5 Inches

Stroke: . . . . . 4.75 Inches

Displacement: . . . . . 903 Cubic Inches

Compression Ratio: 15.5:1

Fuel: . . . . . Multifuel

Rated Horsepower: . . . . . 525 ± 5% at 2800 RPM with DF-2

Rated Torque: . . . . . 1127 ft-lbs ± 5% at 2200 RPM with DF-2

Oil Capacity (Dry): . . . . . 10 Gallons

Oil Capacity (Wet): . . . . . 8 Gallons

Coolant System Capacity: . . . . . 30 Gallons

1-4. TECHNICAL DATA. (Cont.)

4. POWER TRAIN.

Transmission: . . . . . NAVSEA HS-525

Type: . . . . . Hydraulic Torque Converter, Parallel Shaft Gear Arrangement

Maximum Converter Torque Multiplication: 2.83:1

Gear Ratios Forward:
- First Speed: 8.27:1
- Second Speed: 4.63:1
- Third Speed: 2.25:1
- Fourth Speed: 1.27:1

(Reverse uses First and Second Speed Ratios)

Final Drive Ratio: 3.06:1

Overall Maximum Torque Ratio (Engine to Sprocket): 70.8:1

Transmission Oil Capacity: . . . . . 23 Gallons (with Oil Coolers, Filters, Lines)

Improved Transmission Upgrade for Torque Converter, and Speed Change Assy.

5. RUNNING GEAR.

Type: . . . . . Torsion Bar Suspension, Front Sprocket, Raised Rear Idler

Number of Wheels: . . . . . 6 Rubber Tired, Dual per Side, 24 Inch Diameter

Number of Return Idler: . . . . . 1 per Side, 20 Inch Diameter Wheels

Support Rollers: . . . . . 2 Single and 1 Double per side

Sprocket:
- Number of Teeth: 11
- Feet per Revolution: 5.5

Number of Shock Absorbers: . . . . . 4 per Side

Track: . . . . . Steel, Single Pin, Rubber Bushed, with Replaceable Pads

Number of Blocks: . . . . . 85 Maximum per Side

Pitch: . . . . . 6 Inches

Weight per Block: . . . . . 35.4 Pounds Maximum

Weight per Side: . . . . . 3009 Pounds Maximum

6. WATER PROPULSION.

Water Jet Pumps:
- Capacity: . . . . . 14,000 GPM
- Thrust: . . . . . 3,025 Pounds Static
- Quantity: 2
- Location: . . . . . Port and Starboard, Aft

Steering and Reverse by Jet Deflectors

7. ELECTRICAL.

Nominal Voltage: . . . . . 24 VDC

Generator: . . . . . 330 Amp VDC

Battery:
- Volts: 12
- Type: MIL-PRF-32143
- Quantity: 4

1-4. TECHNICAL DATA. (Cont.)

8. COMMUNICATION VEHICLE SYSTEM.

Radio:
AN/VRC-89 Radio Set 1

Inter Communications System:
TOCNET: . . . . . 3 Stations

COMMAND COMMUNICATION SYSTEM:

Radio:
AN/VRC-89D Radio Transmitter: 2
AN/VRC-92D Radio Sets: 1
AN/PRC-117 (LOS): 1
AN/PRC-117 SATCOM: 1
AN/PRC-150: 1
RT-1720:
(Supplied by Embarked Units): 1

TOCNET Communications System:
Tactical Radio Interface Module (TRIM): 3
Enhanced Micro Central Switching Unit (EMCSU): 1
Enhanced Crew Access Unit (eCAU): 7

Telephone:
Iridium Phone Base: 2
Iridium Phone 9505:
(Supplied by Embarked Units): 2

Networking System:

AFATDS: AN/GYK-60:
(Supplied by Embarked Units): 1
Blue Force Tracking System: AN/UYQ-128: 1
Ruggedized Laptop (CF-19): 6

Input Power Conditioning:
DC Voltage Power Distribution Unit: . . . . . 21 DC min./30 VDC max
Surge Suppression: . . . . . 40 VDC max
Current Limiting: . . . . . 90 amps
AC Voltage Power Distribution Unit: . . . . . 110 VAC
Current Limiting: . . . . . 150 amps

9. ARMOR.

Permanent Hull: . . . . . Aluminum Armor Plate
Ramp Outer: . . . . . 1.000 Inch
Ramp Inner: . . . . . .500 Inch
Sides: . . . . . 1.750, 1.395 and 1.222 Inches
Top: . . . . . 1.185 Inches
Bottom: . . . . . 1.185 Inches
Stern: . . . . . 1.395 Inches

Enhanced Applique Armor Kit: . . . . . Protection for Vehicle Side and Slope (APK) and Troop Compartment Overhead (OPK).
(Armor not shown in illustration).
Slope Rack Kit (SRK) for Sponson Stowage of OEM.
Attachment: . . . . . Boss and Joint Offset Method
Material: . . . . . HH Steel, Rubber, Mild Steel Composite
Boss Offset from Hull (no armor): . . . . . 0.75 Inches per Side
Max Offset from Hull (APK): . . . . . 8.50 Inches per Side

1-4. TECHNICAL DATA. (Cont.)

10. FIRE EXTINGUISHERS.

Automatic Fire Sensing and Suppression System (AFSSS)
- Number of Cylinders: 3
- Location: . . . . . Aft Engine Compartment Bulkhead (1), and Fwd Starboard Stanchion (2)
- Capacity: . . . . . 7 Pounds Each, Halon 1301
- Number of Sensors: 4

Portable:
- Number of Cylinders: 1
- Location: . . . . . Staff Seat Position 5
- Capacity: . . . . . 5 Pounds CO_2

Manual Fire Suppression System:
- Troop Compartment:
  - Number of Cylinders: 1
  - Location: . . . . . Port Sponson
  - Capacity: . . . . . 17 Pounds Halon 1301
- Engine Compartment:
  - Number of Cylinders: 2
  - Location: . . . . . Driver's Compartment (1) and Aft Engine Compartment Bulkhead (1)
  - Capacity: . . . . . 7 Pounds Each Halon 1301

11. VISION AND SIGHTING EQUIPMENT.

Driver's Station:
- Direct Vision Blocks: 7
- Driver's Night Vision Viewer AN/VAS-5A(V)6: 1

Mission Commander's Station:
- Direct Vision Blocks: 7
- Periscope, M27: 1

Vehicle Commander's Station:
- Direct Vision Blocks: 9
- Ramp: 1

12. PERSONNEL COMPLEMENT.

Crew (Vehicle Commander, Driver, Assistant Driver): 3

Radio Operators: 6

Unit Commander: 1

13. ARMAMENT AND AMMUNITION.

M240, Machine Gun, Pintle Mounted
- Ammunition: . . . . . 7.62 mm; 1000 Rounds Stowed
- M16A2/M4, 5.56 mm Rifle: . . . . . 3 (Troop Issue)

14. NAVIGATION EQUIPMENT.

Defense Advanced Global Positioning System (GPS) Receiver (DAGR): . . . . . AN/PSN-13(A)

Tactical Navigation Digital Compass System Lite . . . . . TACNAV Lite

Enhanced Position Location Reporting System (EPLRS): AN/VSQ-1

1-4. TECHNICAL DATA. (Cont.)

15. BILGE PUMPS.

Electric (minimum each pump): . . . . . 100 gpm

Hydraulic (minimum each pump): . . . . . 120 gpm

16. AUXILIARY POWER UNIT (APU).

Engine:
- Make: . . . . . Kubota
- Model: . . . . . Z 482
- Type: . . . . . Vertical, water-cooled, 4-cycle diesel engine
- No. cylinders 2
- Bore: . . . . . 67 mm
- Stroke: . . . . . 68 mm
- Total Displacement: . . . . . 479 ccm
- Compression Ratio: . . . . . 23.5 : 1
- Fuel: . . . . . Diesel fuel No. 2-D
- Oil: 15W-40
- Oil Capacity (Dry): . . . . . 2.6 qts
- Oil Capacity (Wet): . . . . . 2.6 qts
- Coolant System Capacity: . . . . . Approx. 3 qts

Generator:
- Make: . . . . . Fischer Panda
- Model: . . . . . AGT 5000
- Winding Type: . . . . . AGT
- Protection Mode . . . . . IP 21
- Insulation Class: . . . . . H
- Nominal Voltage: . . . . . 28 V
- Nominal Speed: . . . . . -> 3000 rpm
- Max Current: . . . . . 160 A
- Apparent Power: . . . . . 5.0 kVA
- Real Power: . . . . . 5.0 kW

17. OTHER.

Capability Enhancements:
- Bow Plane Assy . . . . . NAVSEC P/N 6227757
- Chemical Agent Resistant Coatings (CARC)

Special Mission Kits:
- Visor Kit . . . . . NAVSEC P/N 2587015
- Enhanced Applique Armor Kit: . . . . . Protection for Vehicle Side and Slope (APK) and Troop Compartment Overhead (OPK). (Armor not shown in illustration). Slope Rack Kit (SRK) for Sponson Stowage of OEM.

Production History: . . . . . UDLP/MCLB
- RAM/RS Prototype: 1995
- RAM/RS Production AAV7A1: 2001

CHAPTER 2

OPERATING INSTRUCTIONS

Section I. CONTROLS AND INSTRUMENTS

2–1. GENERAL. This section of the chapter identifies and describes the equipment on the AAVC7A1 that is not part of the AAVP7A1. It also describes preventive maintenance procedures and operating instructions for this equipment. See TM 09674A–10/3 for PMCS instructions and operating instructions for all other vehicle equipment. The following list of equipment is not discussed in this chapter. A reference Technical Manual (TM) is provided.

EQUIPMENT	TECHNICAL MANUAL
AN/PRC-117	TM 10597A-OR/4
AN/PRC-150	TM 10822A-10/1
Tactical Operations Center Intercommunication's System	TOCNET TM VERSION 13 REVISION 5402010–002 TOCNET User's Manual 071231

2–1. GENERAL. (Cont.)

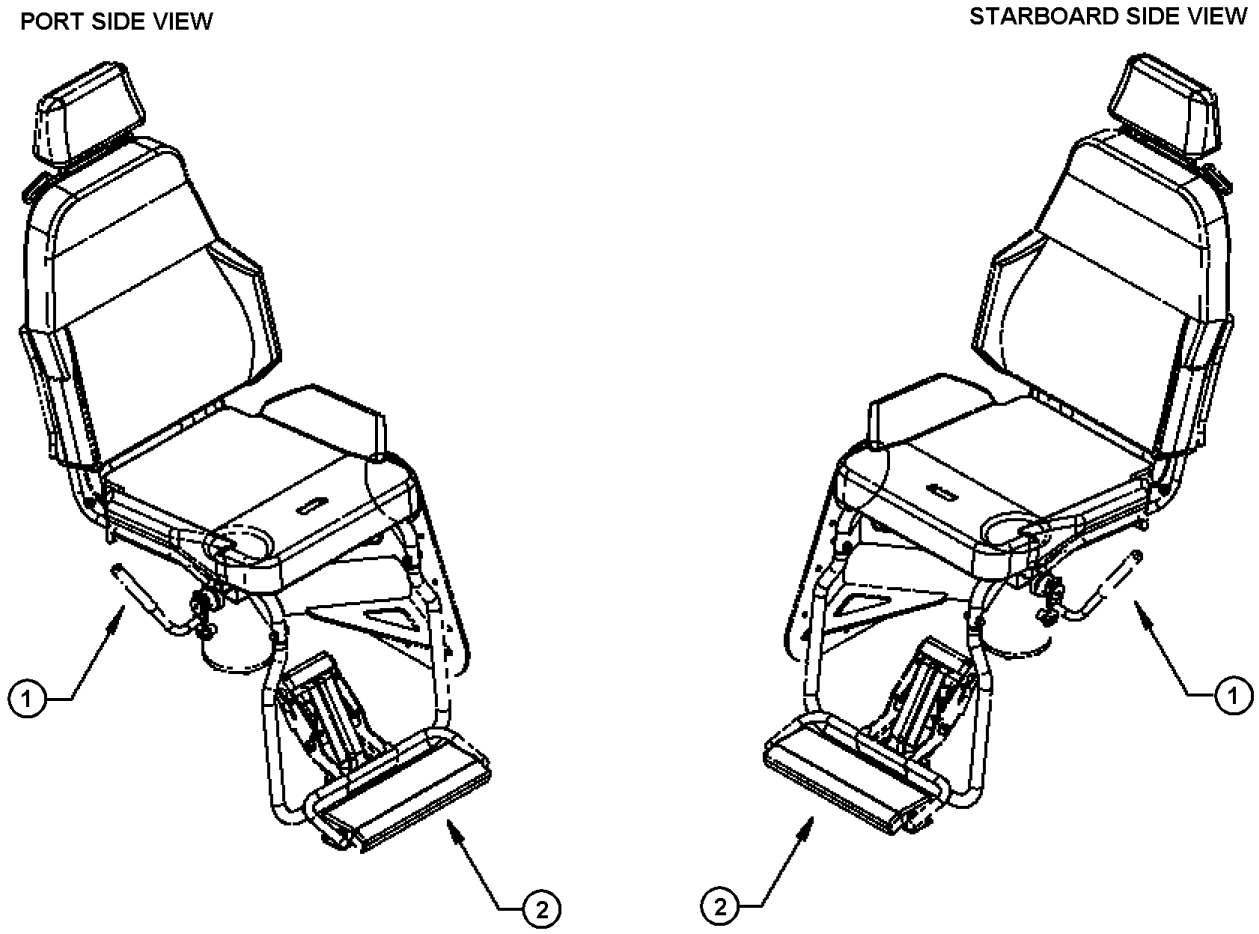


Figure 2–1. Communication/Staff Seat Module.

Key	Control	Function
1	Seat Handle Release	This handle serves two functions; as a rotation handle and as a seat release handle. Push outward to rotate the seat 45 degrees inboard. Also, while pushing outward on the handle and lifting the seat simultaneously, the seat can be removed.
2	Foot Rest	Lifting up on the foot rest will adjust height. To reset the foot rest, it must be lifted completely and then lowered.

2–1. GENERAL. (Cont.)

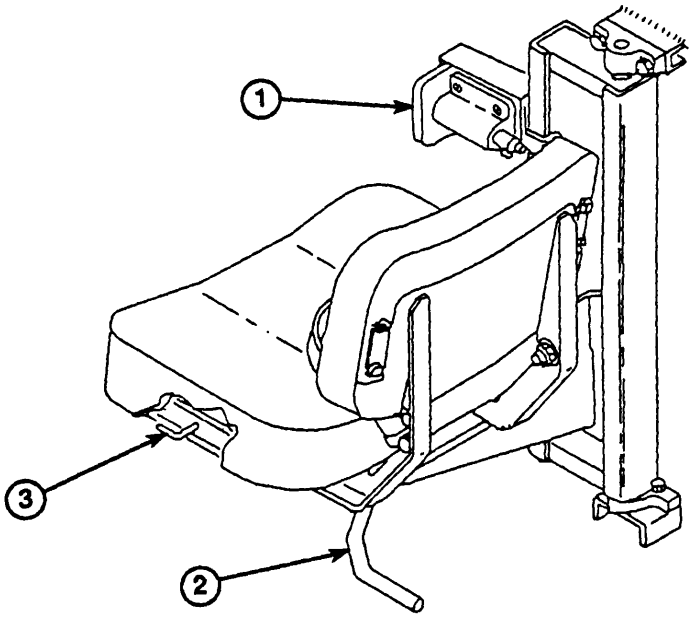


Figure 2–2. Vehicle Commander's Station Seat Controls.

Key	Control	Function
1	Seat latch	Push forward to rotate seat.
2	Vertical release handle	Pull handle to move seat up and down.
3	Horizontal release handle	Pull up to move seat forward and aft.

2–1. GENERAL. (Cont.)

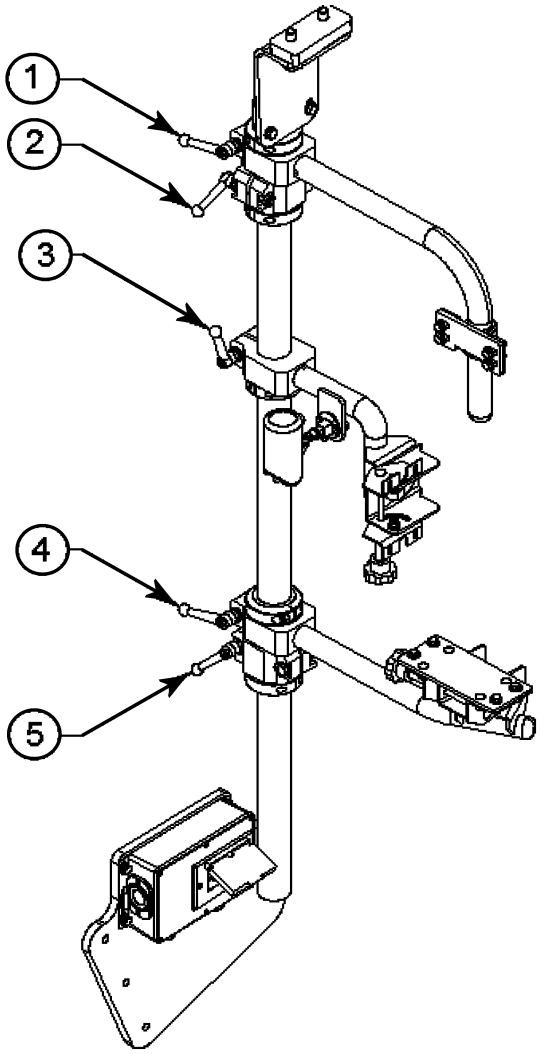


Figure 2–3. Work Station One Pole Assembly.

Key	Control	Function
1	BFT Screen Mounting Arm Adjustable Handle	Controls the Forward and Back movement of the screen.
2	BFT Screen Mounting Arm Adjustable Handle	Controls the Up and Down movement of the screen.
3	Enhanced Crew Access Unit (eCAU) Mounting Arm Adjustable Handle	Controls the Forward, Back, Up and Down movements of eCAU.
4	Laptop Mounting Arm Adjustable Handle	Controls the Forward and Back movement of the laptop.
5	Laptop Mounting Arm	Controls the Up and Down movement of the laptop.

2–1. GENERAL. (Cont.)

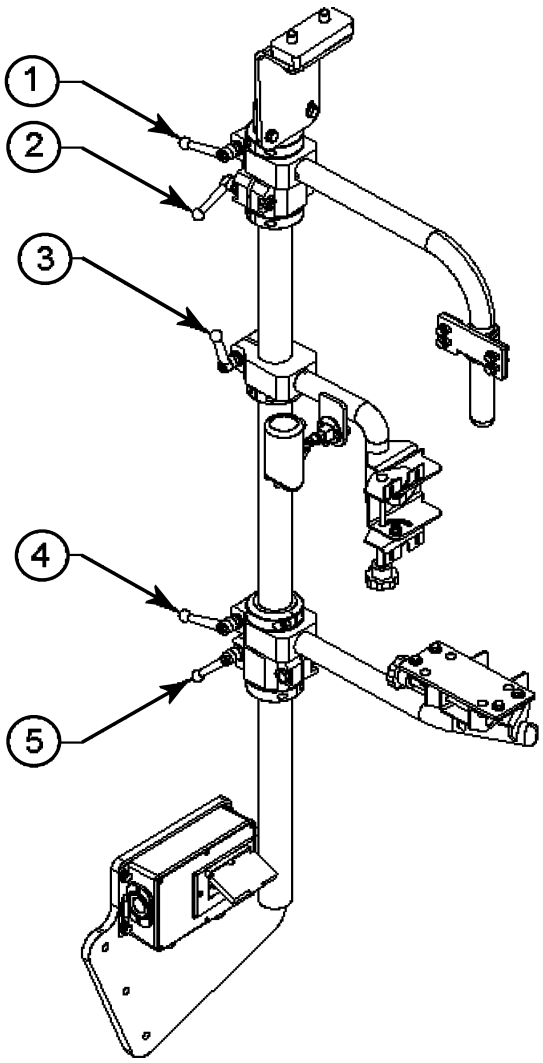


Figure 2–4. Work Station Two Pole Assembly.

Key	Control	Function
1	Windows Server Monitor Arm Adjustable Handle	Controls the Forward and Back movement of screen.
2	Windows Server Monitor Arm Adjustable Handle	Controls the Up and Down movement of screen.
3	eCAU Mounting Arm Adjustable Handle	Controls the Forward, Back, Up, and Down movement of eCAU.
4	Laptop Mounting Arm Adjustable Handle	Controls the Forward and Back movement of the laptop.
5	Laptop Mounting Arm Adjustable Handle	Controls the Up and Down movement of the laptop.

2–1. GENERAL. (Cont.)

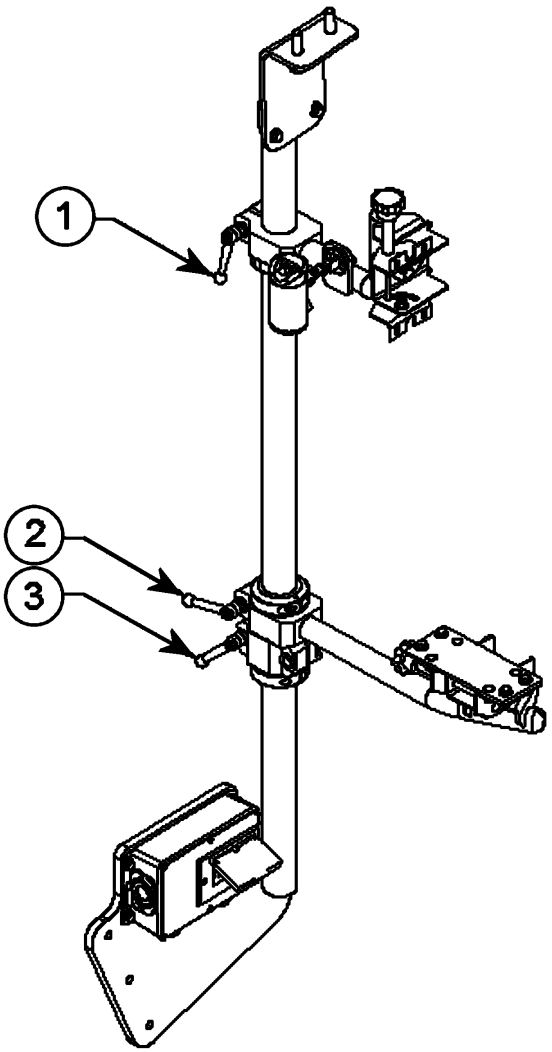


Figure 2–5. Work Stations Three, Five and Six Pole Assemblies.

Key	Control	Function
1	eCAU Mounting Arm Adjustable Handle	Controls the Forward, Back, Up, and Down movement of eCAU.
2	Laptop Mounting Arm Adjustable Handle	Controls the Forward and Back movement of the laptop.
3	Laptop Mounting Arm Adjustable Handle	Controls the Up and Down movement of the laptop.

2–1. GENERAL. (Cont.)

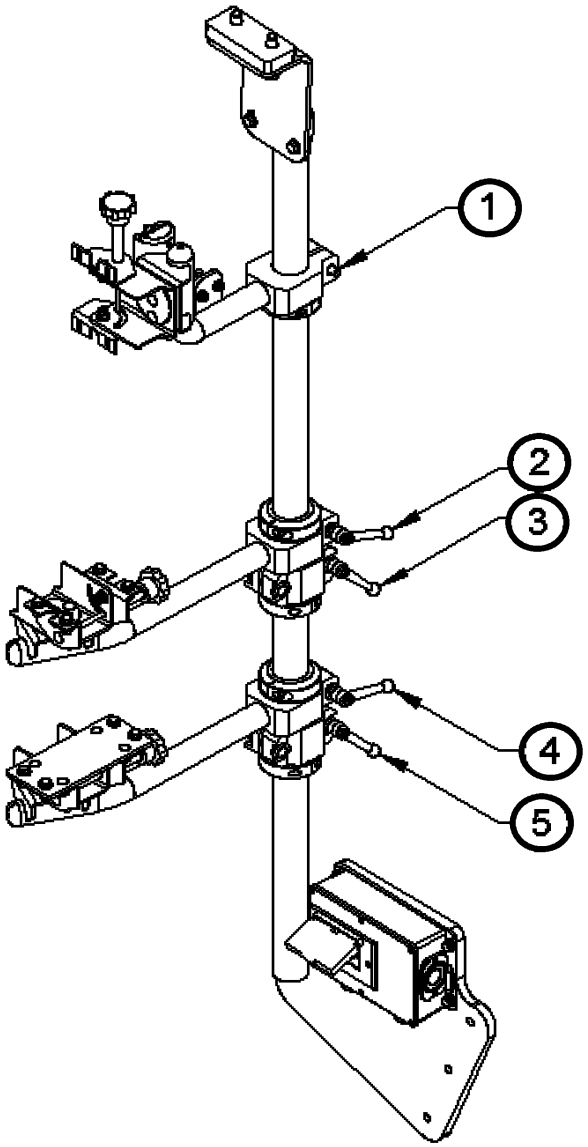


Figure 2–6. Work Station Four Pole Assembly.

Key	Control	Function
1	eCAU Mounting Arm Adjustable Handle	Controls the Forward, Back, Up, and Down movement of eCAU.
2	Advanced Field Artillery Tactical Data System (AFATDS) Mounting Arm Adjustable Handle	Controls the Forward and Back movement of screen.
3	AFATDS Mounting Arm Adjustable Handle	Controls the Up and Down movement of screen.
4	Laptop Mounting Arm Adjustable Handle	Controls the Forward and Back movement of the laptop.
5	Laptop Mounting Arm Adjustable Handle	Controls the Up and Down movement of the laptop.

2–1. GENERAL. (Cont.)

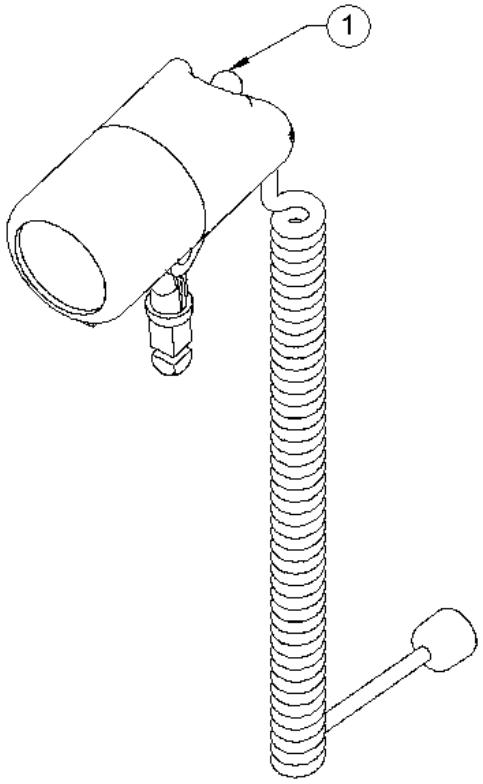


Figure 2–7. Staff Extension Light.

Key	Control	Function
1	ON/OFF Switch	Press switch to turn ON. Press switch to turn OFF.

2–1. GENERAL. (Cont.)

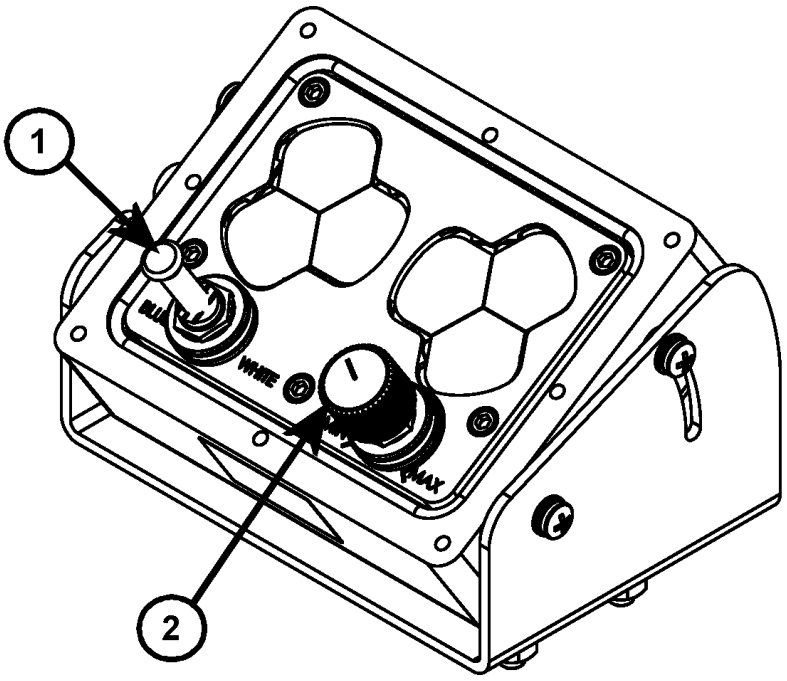
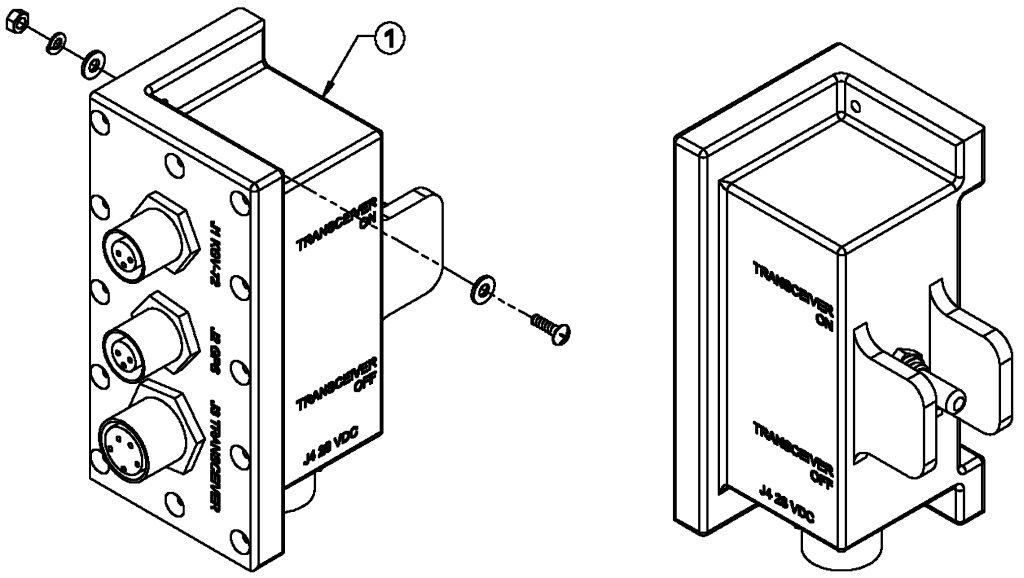


Figure 2–8. Forward / Aft Cabin Light Assembly.

Key	Control	Function
1	ON/OFF Switch	Lifting and toggling the switch to White will turn ON the white light. Lifting and toggling the switch to Blue will turn ON the blue light. Lifting and toggling back to Center will turn OFF lights.
2	Dimmer Knob	Controls the brightness of the lights.

2–1. GENERAL. (Cont.)



FRONT ISOMETRIC VIEW REAR ISOMETRIC VIEW

Figure 2–9. Blue Force Tracker (BFT) Power Module Assembly.

Key	Control	Function
1	Power Switch	Push switch up to turn ON power to the Defense Advanced Global Positioning System Receiver (DAGR). The switch will glow a light green. Push switch down to turn OFF power to the DAGR. The switch will cease glowing.

2–1. GENERAL. (Cont.)

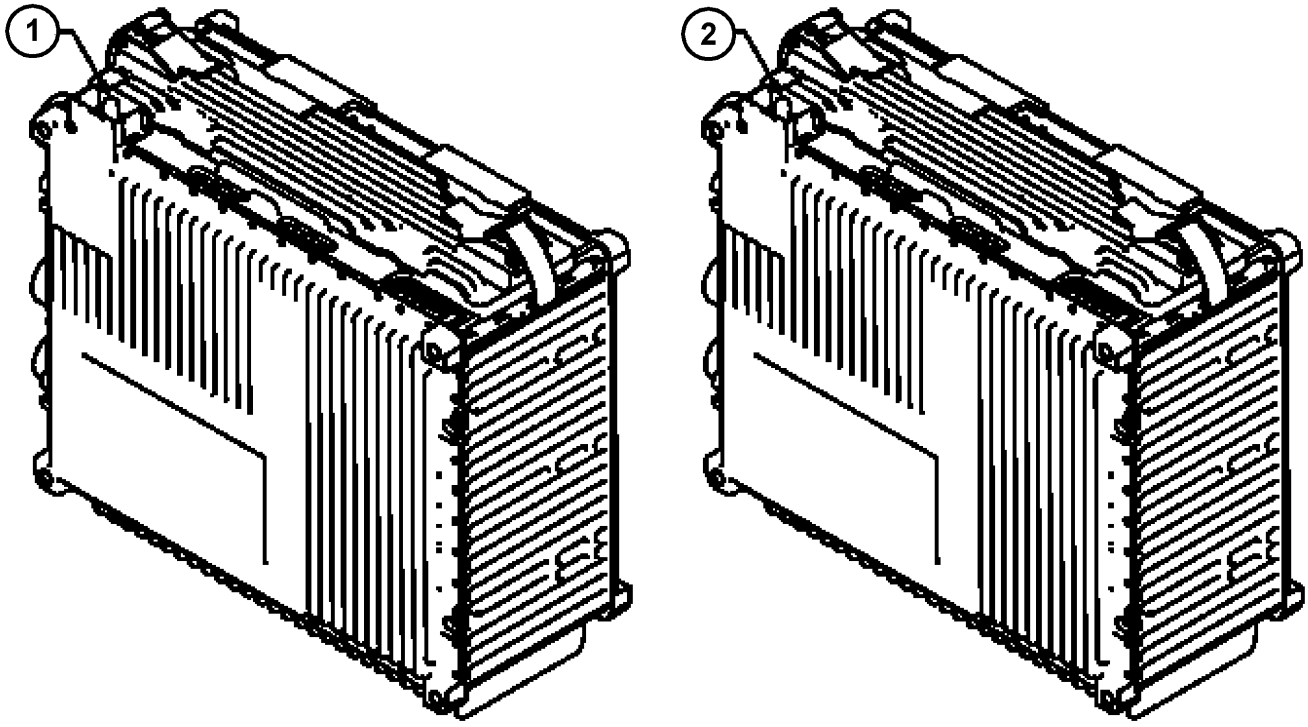


Figure 2–10. JV5 Windows Server / JV5 BFT.

Key	Control	Function
1	Power Switch (JV5)	Turns the power ON and OFF.
2	Circuit Breaker 1 (CB1)	Turns the BFT power ON and OFF.

2–1. GENERAL. (Cont.)

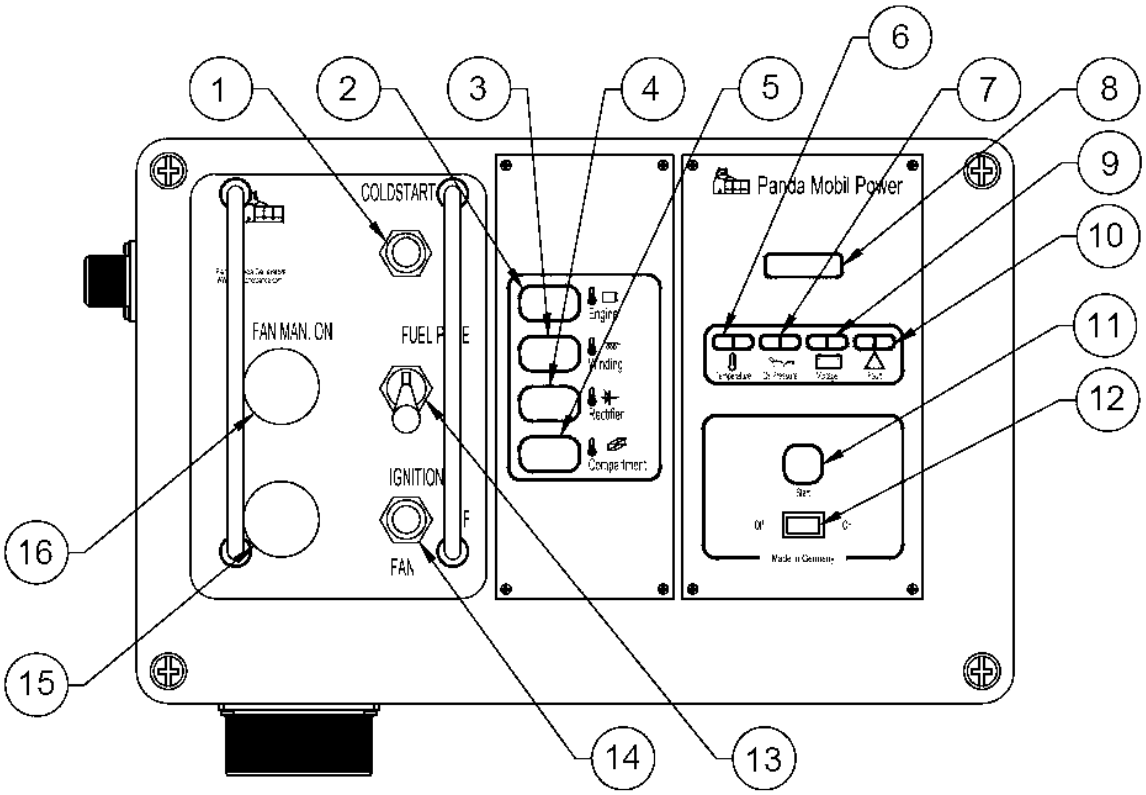


Figure 2–11. Auxiliary Power Unit (APU) Control Panel.

Key	Control	Function
1	Coldstart Push Button	Used to start the APU under cold weather conditions.
2	Engine Temperature Indicator	Shows engine temp (green is ok, red is high).
3	Winding Temperature Indicator	Shows winding temp (green is ok, red is high).
4	Rectifier Indicator	Shows rectifier temp (green is ok, red is high).
5	Compartment Indicator	Shows compartment temp (green is ok, red is high).
6	Engine Temperature Indicator	Control light for the engine temperature.
7	Oil Pressure Indicator	Control light for the oil pressure.
8	Operating Hours Display	Displays operating hours.
9	Battery Charge Voltage Indicator	Control light for the battery charge voltage.
10	Fault Indicator	Control light for operating/fault status
11	Generator Start Button	Button to start the generator
12	Panel Stand By Button	Standby button for the generator
13	Fuel Prime Switch	Primes the APU with fuel.
14	Ignition / Fan Switch	Up is Ignition, middle is off, and down is fan manual on
15	Ignition Control Light	Indicator for ignition.
16	Fan Manual Control Light	Indicator for the manual fan control.

2–1. GENERAL. (Cont.)

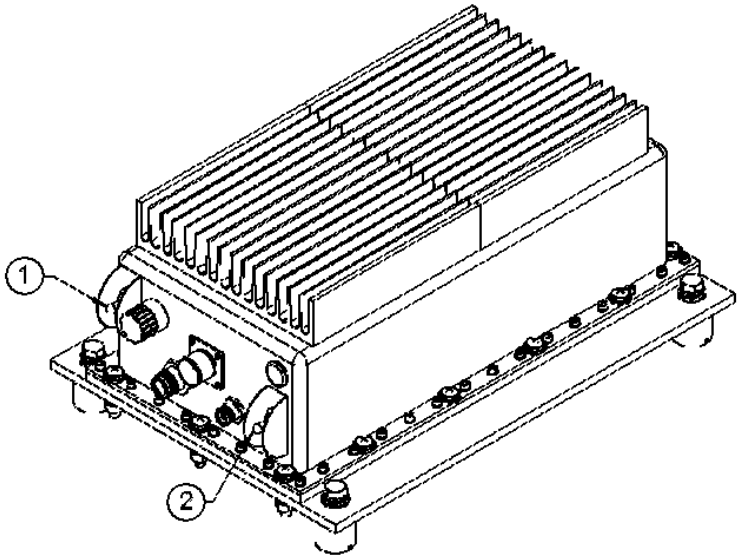


Figure 2–12. HPA/LNA Power Distribution Assembly.

Key	Control	Function
1	Bypass Switch	Line-of-Sight (LOS) Satellite Communications (SATCOM) selector.
2	ON/OFF Switch	Turns power ON/OFF to the High Power Amplifier / Low Noise Amplifier (HPA/LNA) and the SATCOM Radio.

2–1. GENERAL. (Cont.)

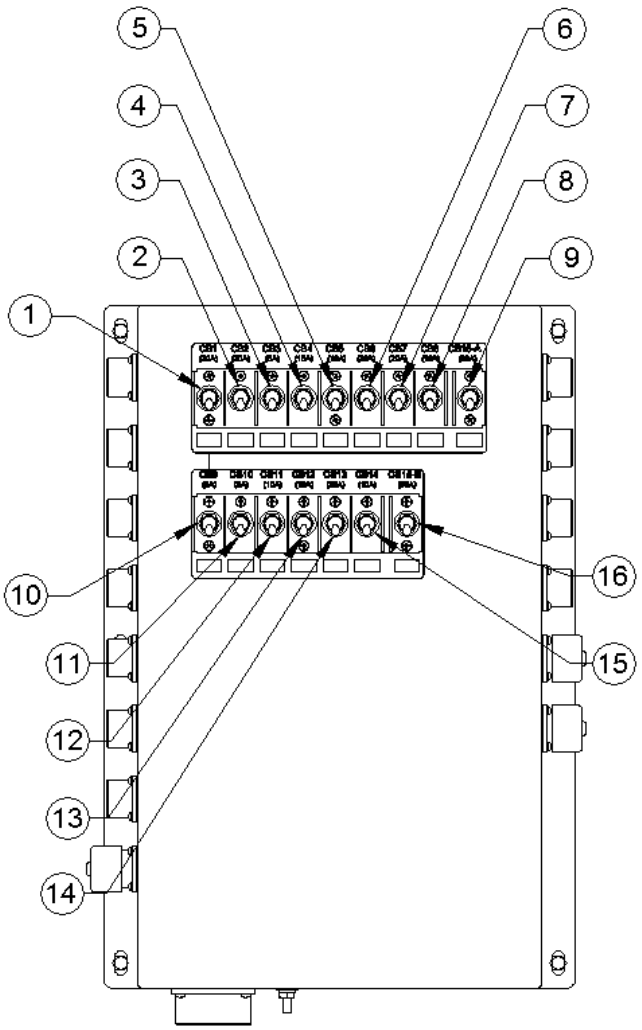


Figure 2–13. Direct Current Power Distribution Unit (DCPDU).

Key	Control	Function
1	CB1	Provides power to the AN/VRC-92 Radio.
2	CB2	Provides power to both AN/VRC-89 Radios.
3	CB3	Provides power to Staff EPLRS Radio.
4	CB4	Provides power to the Crew AN/VRC-89 Radio and EPLRS Radio.
5	CB5	Provides power to AN/PRC-150 Radio.
6	CB6	Provides power to Power Distribution Assembly (PDA) for the AN/PRC-117 SATCOM Radio.
7	CB7	Provides Power to AN/PRC-117 LOS Radio.
8	CB8	Spare.
9	CB15A	AAV / APU Filtered Power.
10	CB9	Provides power to Starboard Staff Extension Lights.
11	CB10	Provides power to Port Staff Extension Lights and Sixnet Hub.
12	CB11	Provides power to BFT
13	CB12	Provides power to both Iridium Phones.
14	CB13	Spare.
15	CB14	Spare.
16	CB15B	AAV / APU Unfiltered Power.

2-1. GENERAL. (Cont.)

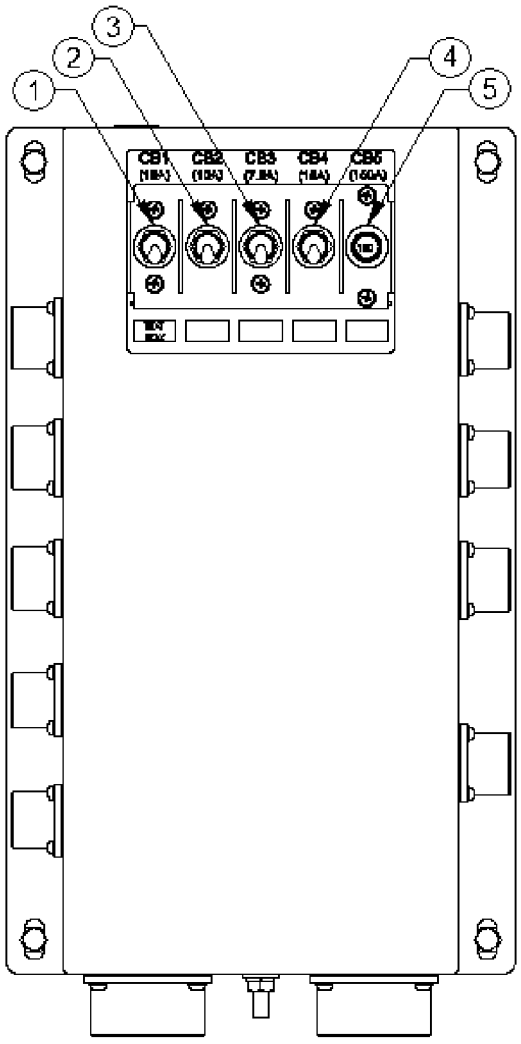


Figure 2-14. Alternating Current Power Distribution Unit (ACPDU).

Key	Control	Function
1	CB1	DC – DC converter provides 12VDC power to Convenience Power Outlet.
2	CB2	Provides 120VAC to Convenience outlets.
3	CB3	Spare.
4	CB4	DC output and provides filtered 24VDC power to the TOCNET system, Windows server, Router, and Switch.
5	CB5	CB5 is the main circuit breaker that supplies 24VDC to the UPS

2–1. GENERAL. (Cont.)

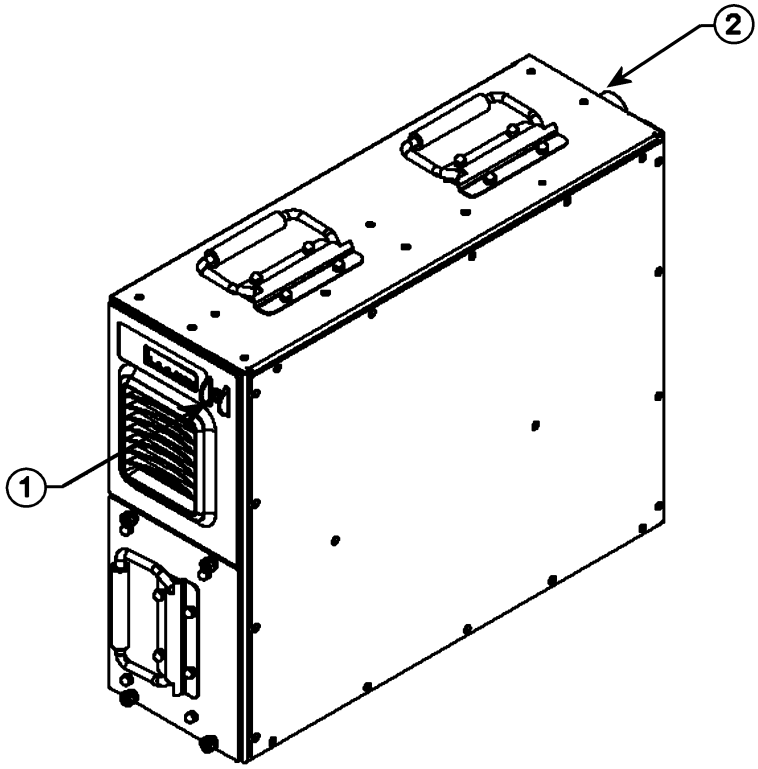


Figure 2–15. Uninterruptible Power Supply (UPS).

Key	Control	Function
1	ON/OFF Switch	Push down and hold (For 3 to 5 seconds) to power on the UPS. Pull up and hold (For 3 to 5 seconds) to power off the UPS.
2	Circuit Breaker Switch	The circuit breaker toggle switch on the back of the UPS is the circuit protection for the 85/265 VAC input to the UPS and has no effect when used in the AAV. This switch/circuit breaker is needed only when powered by an external AC source.

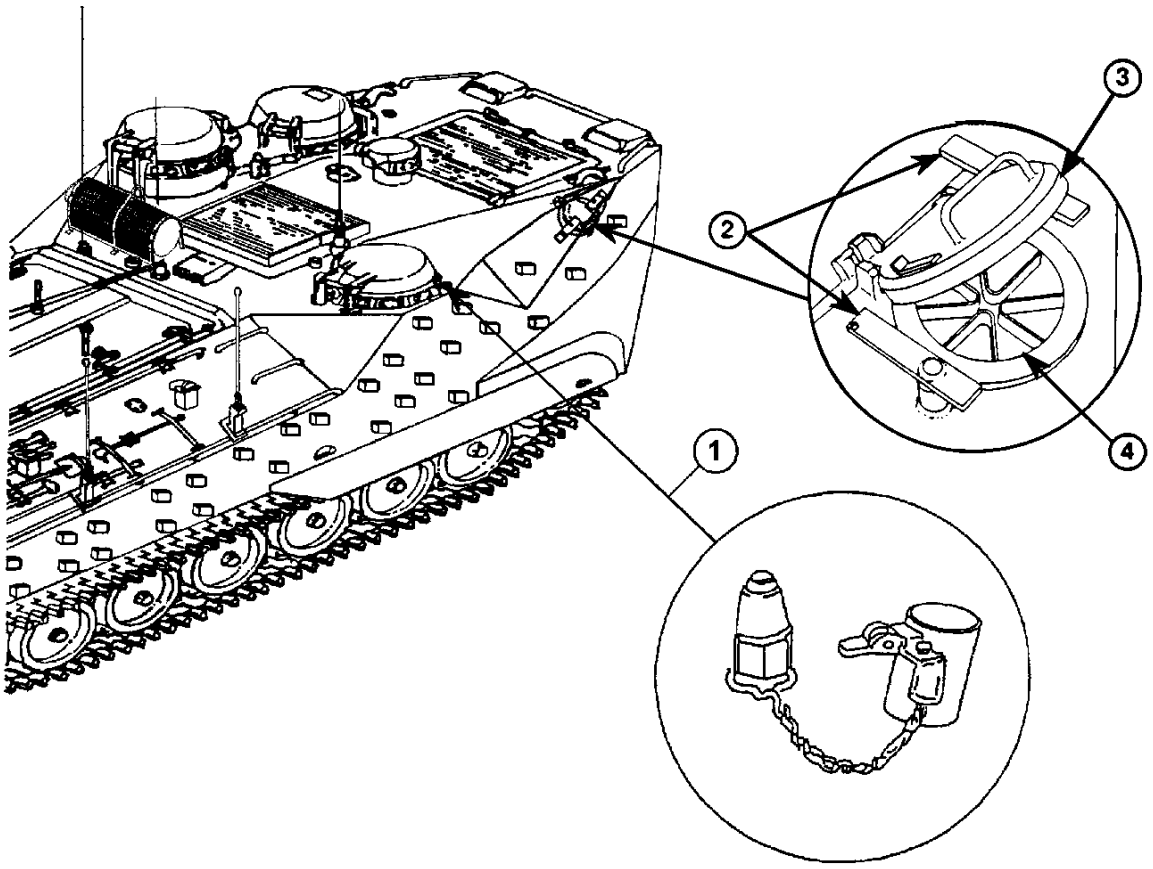
Section II. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

2–2. GENERAL. Complete all checks in TM 09674A-10/3. Then complete the checks listed in this section. This section covers items found on the AAVC7A1 not found on the AAVP7A1.

CAUTION

Failure to conduct proper preventive maintenance checks will result in serious equipment damage or failure.

a. APU Exhaust Cover. Check to make sure APU exhaust cover handles (2) move freely. Check that handles (2) and cover (3) are free from cracks and rust. Check that exhaust opening (4) is clear of debris. Check that cover seal is serviceable.



Section III. OPERATING VEHICLE UNDER NORMAL CONDITIONS

2–3. GENERAL. This section covers operating procedures for items of equipment found only on the AAVC7A1. See TM 09674A–10/3 for operating instructions for all other vehicle equipment. See TM 08463–10 for operation of command communication system.

2–4. BEFORE STARTING ENGINE.

a. Procedures.

(1) Do the before operation preventive maintenance checks and services and ensure fuel shutoff manual control handle is open (See TM 09674A–10/3).

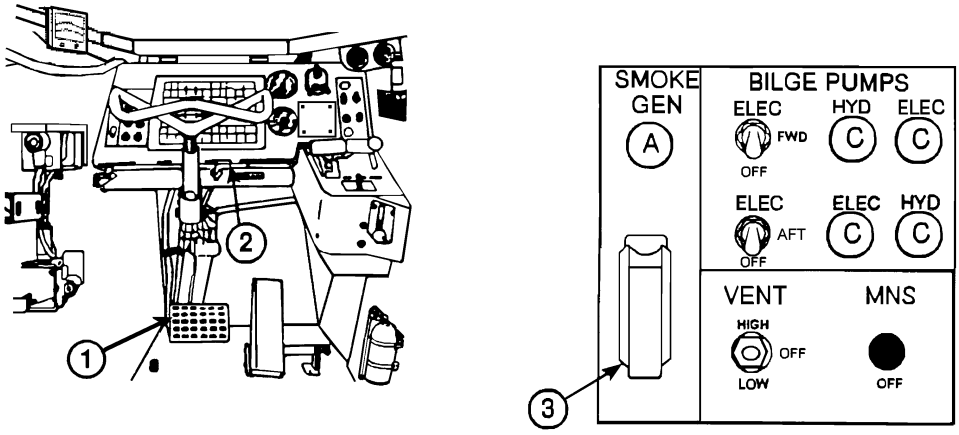
(2) Set parking brake as follows:

(a) Press hard on brake pedal (1). Pull handle (2) aft and turn handle to the left until it locks in position.

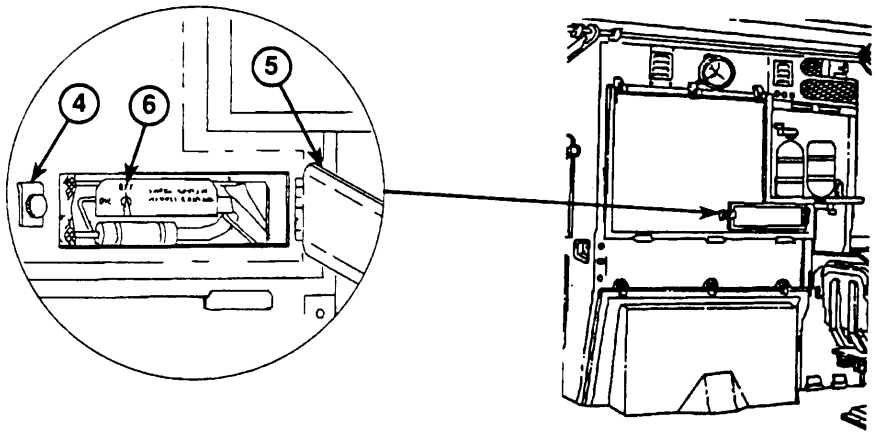
(b) Release handle (2) and let up on brake pedal (1).

(c) Tap downward on brake pedal (1). Handle (2) should not move if brakes are fully set.

(3) Make sure smoke switch guard (3) is closed (down position).



(4) Loosen thumbscrew (4) and open access door (5). Make sure smoke system manual control (6) is off.



2–4. Before Starting Engine. (Cont.)

a. Procedures. (Cont.)

(5) Make sure Direct Current Power Distribution Unit (DC PDU) and Alternating Current Power Distribution Unit (AC PDU) circuit breakers are OFF by verifying that the CB4 switch is in the downward position on the AC PDU and the CB15 A switch is in the downward position on the DC PDU. Refer to Figure 2–13 for the DC PDU and Figure 2–14 for the AC PDU.

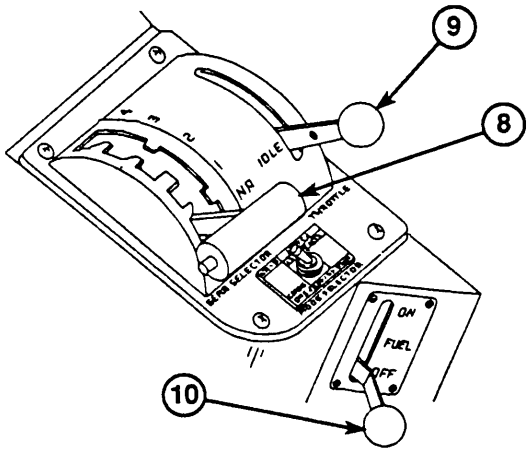
(6) Verify power switch, CB15 B (16, Fig. 2–13), is on to charge the UPS battery while the engine is running.

(7) Place transmission gear selector (8) in N (Neutral).

(8) Place hand throttle (9) in idle.

(9) Make sure fuel control (10) is off and fuel shutoff valve is open.

(10) See Chapter 2 of TM 09674A–10/3 for complete starting procedure.



2–5. BLACKOUT COVERS.

a. Installation.

(1) Remove blackout covers from tube strapped to cargo hatch. Install Driver's and Mission Commander's blackout cover (1) on locating studs (2).

(2) Fasten outer edge of cover (1) by firmly pressing self–adhering tape to vehicle hook fasteners.

(3) Install vehicle commander's cover (3) in vehicle commander's hatch. Firmly press self–adhering tape around entire cover to vehicle hook fasteners.

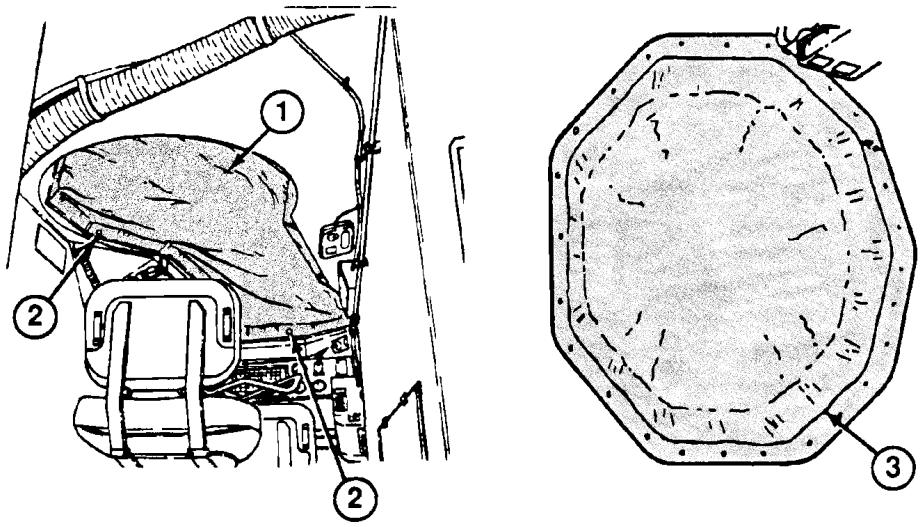
NOTE

If tactical situation permits, check vehicle from outside to ensure no light is visible.

b. Removal.

(1) Remove blackout cover (1) from locating studs (2). Peel cover from vehicle hook fasteners.

(2) Peel blackout cover (3) from vehicle hook fasteners in vehicle commander's station. Roll up and return covers to tube stowed on cargo hatch cover.



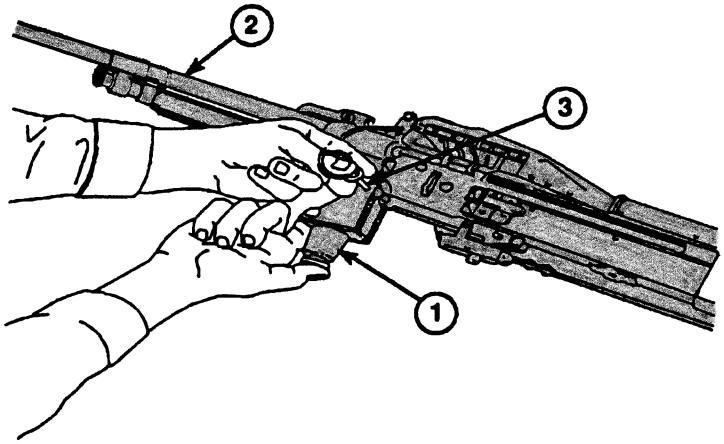
Section IV. M240 MACHINE GUN OPERATION

2–6. INSTALLING MACHINE GUN AT VEHICLE COMMANDER'S STATION.

a. Pintle Mount Installation.

(1) Place pintle mount (1) on machine gun (2).

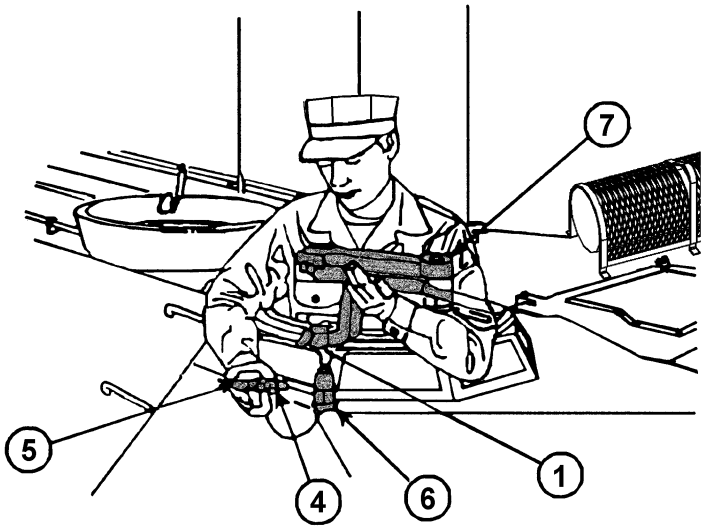
(2) Insert quick release pin (3) that holds pintle mount (1) to machine gun (2).



b. Machine Gun and Mount Installation.

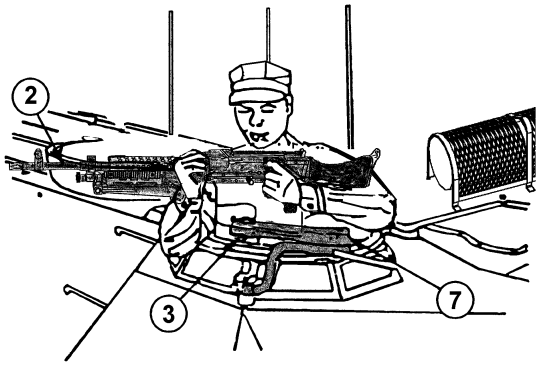
(1) Unlock lock (4) and remove cover (5) from vehicle pintle (6).

(2) Place machine gun mount (7) on pintle (6). Secure with lock (1).



2–6. INSTALLING MACHINE GUN AT VEHICLE COMMANDER'S STATION. (Cont.)

(3) Install machine gun (2) on machine gun mount (7). Secure with lock (3).

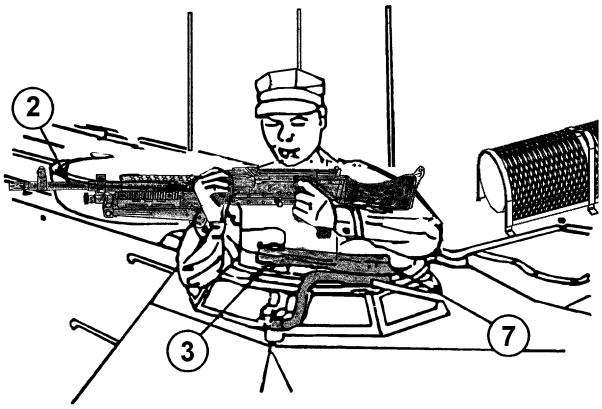


c. Machine Gun and Mount Removal.

NOTE

For loading, firing, corrective action, and unloading M240 machine gun, see TM 08670A–10/1. For classification and identification of 7.62 mm ammunition for the M240 Machine Gun, see TM 9–1305–200.

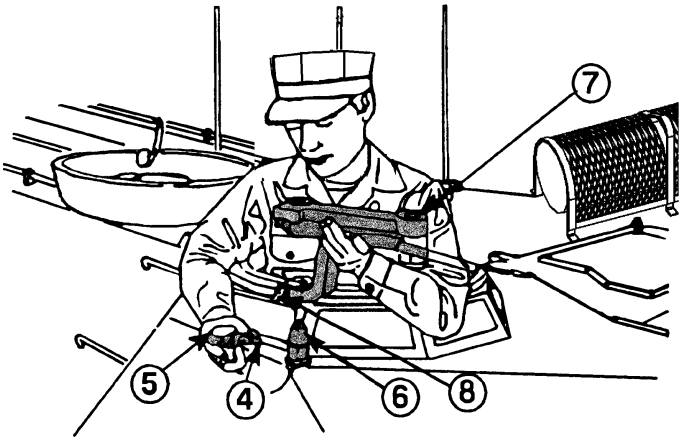
(1) Unlock lock (3) and remove machine gun (2) from machine gun mount (7).



2–6. INSTALLING MACHINE GUN AT VEHICLE COMMANDER'S STATION. (Cont.)

(2) Unlock lock (8) and remove machine gun mount (7) from pintle (6).

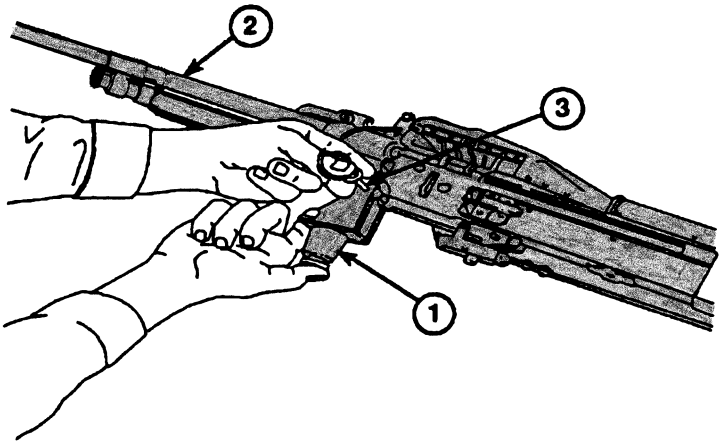
(3) Place cover (5) on pintle (6) and secure with lock (4).



d. Pintle Mount Removal.

(1) Remove quick–release pin (3) that holds pintle mount (1) to machine gun (2).

(2) Remove pintle and mount (1) from machine gun (2).



Section V. AUXILIARY POWER UNIT OPERATION

2–7. AUXILIARY POWER UNIT (APU).

CAUTION

Open APU exhaust cover before operating APU engine.

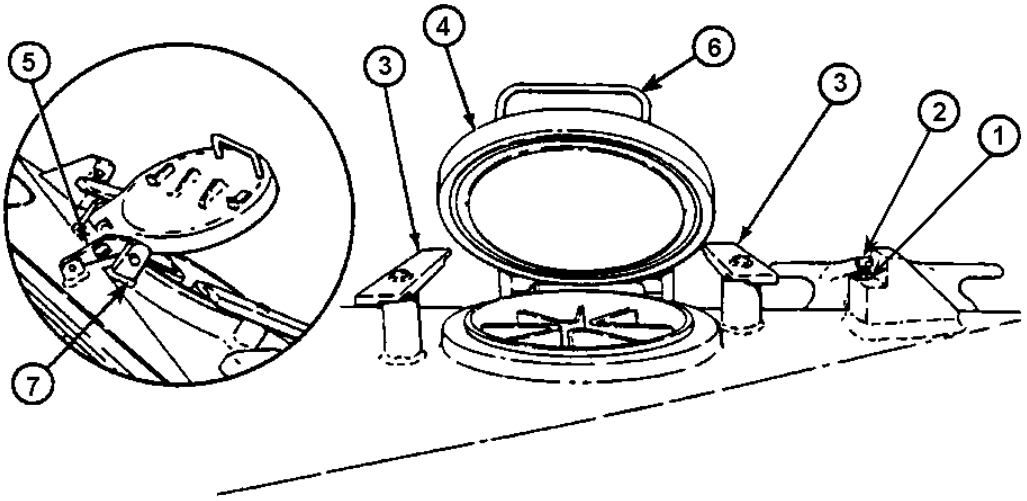
a. Auxiliary Power Unit Exhaust Cover.

NOTE

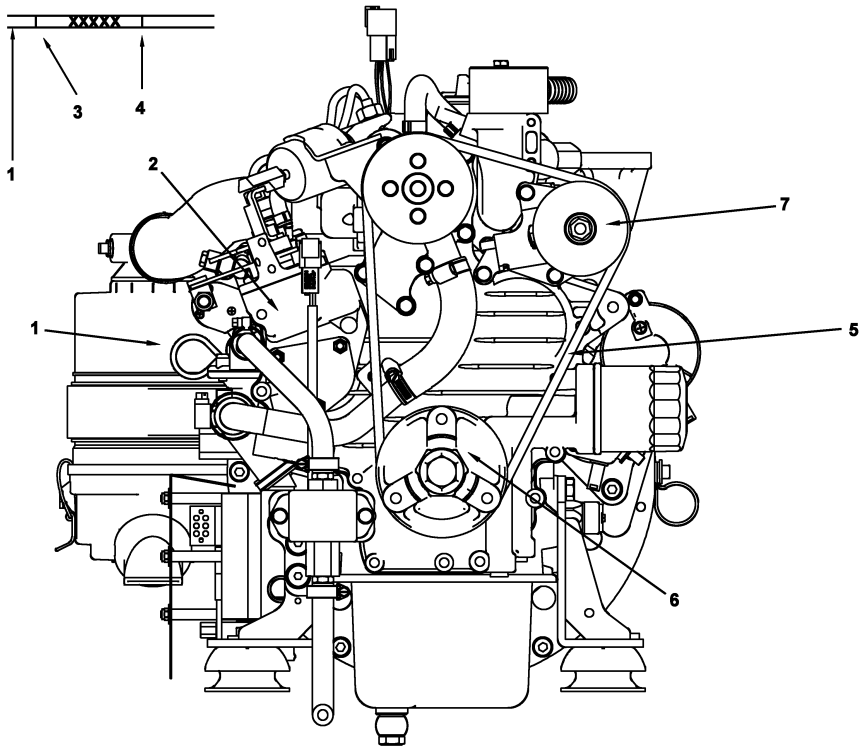
You will have to force forward clamp handle over head of retaining screw.

(1) Loosen jam nut (1), adjust screw (2) until clamp handle (3) can be turned. Swing two clamp handles (3) away from exhaust cover (4). Raise cover until link (5) drops to hold cover (4) open.

(2) To close APU cover, raise exhaust cover (4) by handle (6) and lift link (5) from catch (7). Lower cover and swing two clamp handles (3) over cover. Secure forward clamp handle (1) with screw (2) and jam nut (1).



2–7. AUXILIARY POWER UNIT (APU). (Cont.)



b. Before APU Operation.

(1) Open and secure intake grille (See TM 09674A-10/3).

(2) Open APU exhaust cover (step a.(1)).

(3) Remove APU top enclosure cover by removing eight thumbscrew clamps from cover.

(4) Check oil before starting APU by removing oil dip stick (1) from the APU engine (2). APU engine oil level must not fall below the min (3) or exceed max (4) marking on the dipstick (1). Add or drain oil as needed.

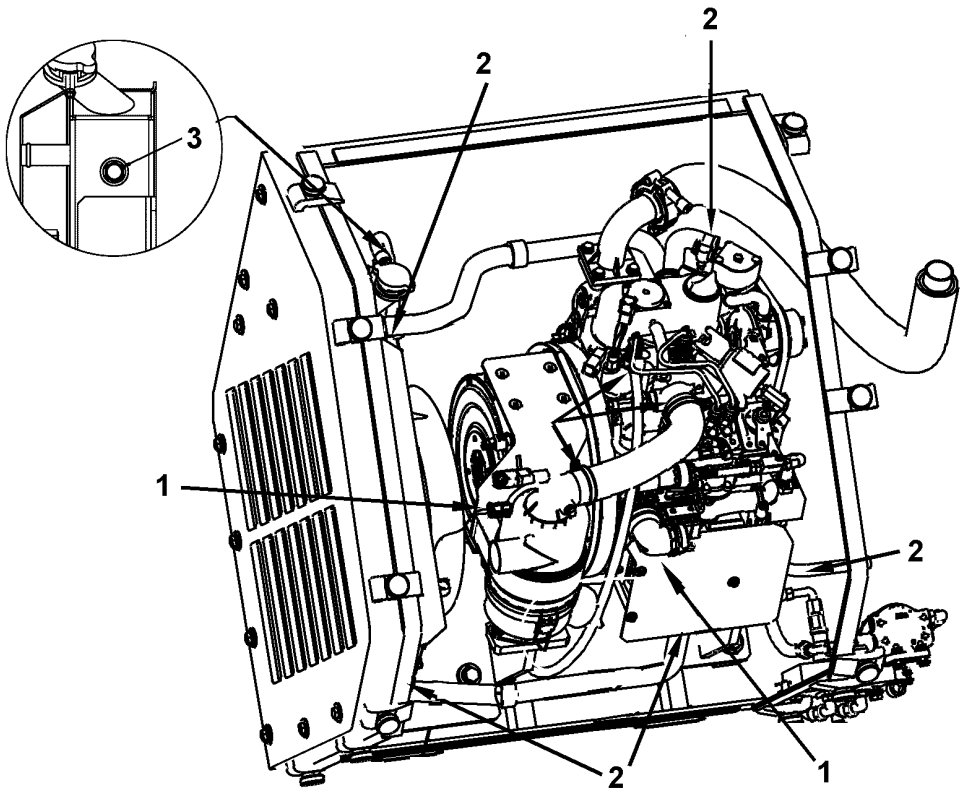
(5) Check V-belt (5) for looseness.

(a) Check V–belt (5) tension by pushing on the belt between the crankshaft (6) and adjustment pulley (7). there should be approximately 1 centimeter deflection when pressed with thumb (see illustration).

(b) If the belt tension is not correct or shows signs of slippage, notify organizational maintenance.

(6) Check exterior of APU for cooling, fuel, and oil leaks, notify organizational maintenance of any leaks.

2–7. AUXILIARY POWER UNIT (APU). (Cont.)



(7) Check cable connections (1) and hose clamps (2) for security.

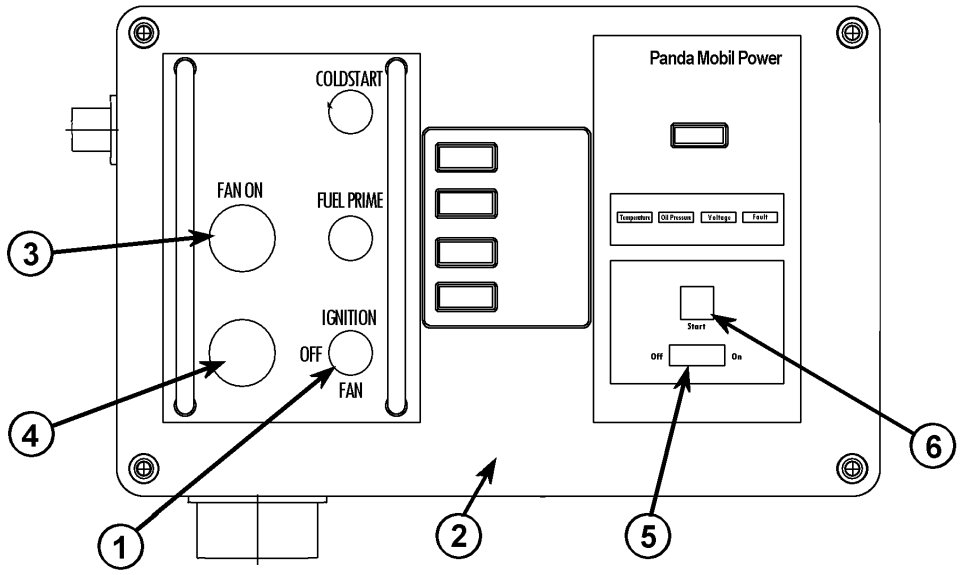
CAUTION

Check coolant level before operation. Failure to maintain proper coolant level will result in damage to the APU.

(8) Check APU cooling system fluid sight glass (3) for coolant. If coolant is not present or low, notify organizational maintenance.

(9) Reinstall APU top enclosure cover using eight thumbscrew clamps.

2–7. AUXILIARY POWER UNIT (APU). (Cont.)



c. APU Operation.

(1) Turn vehicle power on.

(2) Ensure vehicle fuel valve is in the “OPEN” position and vehicle fuel switch is in the “OFF” position.

(3) Run fan for three to five minutes prior to starting the APU. Position power switch (1) down to the “FAN” position to start APU cooling fan. The “FAN ON” light (3) should illuminate.

(4) To start the APU, place the power switch (1) on the APU remote control panel (2) up to the “IGNITION” position. The “IGNITION” light (4) should illuminate. Place the starter toggle switch (5) to the “ON” position. Press and release the “START” button (6) to start the engine (do not hold button down). The starter will automatically disengage and stop when the engine starts.

2–7. AUXILIARY POWER UNIT (APU). (Cont.)

d. During APU Operation.

(1) Check that the APU idles properly.

(2) Check APU for fuel, coolant, or oil leaks.

(3) Check exhaust. Check for leaks and ensure the exhaust remains colorless.

(4) Immediately shut down APU if:

(a) Engine suddenly slows down.

(b) Engine suddenly accelerates.

(c) Engine makes unusual noises.

(d) Exhaust becomes dark.

(e) Oil pressure and/or the water temperature lamp lights illuminate.

e. APU Shut Down Procedures.

(1) Allow APU to run unloaded for two minutes before shutdown.

(2) Place the starter toggle switch (5) on the remote control panel (2) to the “OFF” position.

(3) Place the power switch (1) in the “OFF” position.

(4) Ensure vehicle fuel valve is in the “CLOSED” position.

(5) Close APU exhaust cover (step a.).

(6) Turn vehicle power off.

f. After APU Operation.

(1) Open and secure intake grille (See TM 09674A-10/3).

(2) Remove APU top enclosure cover by removing eight thumbscrew clamps.

(3) Check the following fluid levels:

(a) Engine Oil.

(b) Engine Coolant.

(4) Check for coolant, fuel, and oil leaks.

(5) Reinstall APU top enclosure cover using eight thumbscrew clamps.

(6) Close intake grille (See TM 09674A-10/3).

Section VI. DC POWER DISTRIBUTION UNIT (DC PDU) OPERATION

2–8. DIRECT CURRENT POWER DISTRIBUTION UNIT (DC PDU).

CAUTION

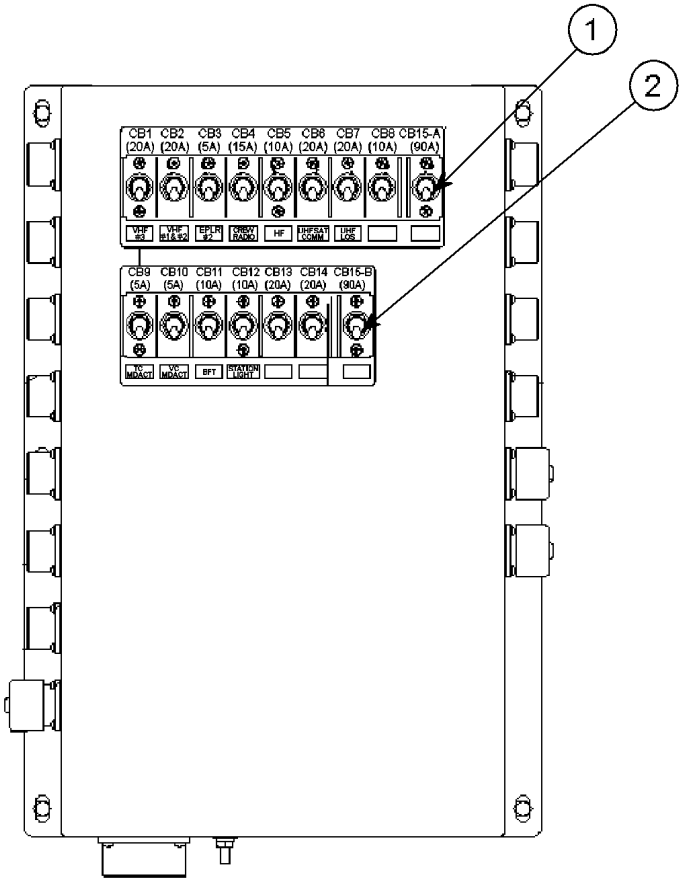
To prevent excessive current draws from batteries during startup ensure that all circuits breakers on the DC PDU are off prior to startup.

a. DC PDU Startup.

(1) Start vehicle (See TM 09674A-10/3).

(2) Initiate power to C2 components by setting circuit breakers CB15–A (1) and CB15–B (2) to ON.

(3) Circuit breakers CB1 through CB14 can be engaged in any order for a desired component to be activated.



b. DC PDU Shut down.

(1) To power down the DC PDU, set circuit breakers CB1 through C14 to OFF.

(2) Set circuit breakers CB15–A (1) and C15–B (2) to OFF.

(3) If required, shut down vehicle (See TM 09674A-10/3).

Section VII. TOCNET OPERATION

2–9. TOCNET CONFIGURATION.

a. eMCSU. The TOCNET eMCSU is delivered with the Ethernet ports set to a fixed IP address of 192.168.1.1 or 192.168.1.15. The eMCSU's IP address must be changed to the unit assigned IP scheme.

(1) Hardware Connection.

(a) Connect the male connector of the null modem serial cable to the eMCSU J2 port.

(b) Connect the female connector of the null modem serial cable to the COM1 port on the CF-19 docking station.

(2) Hyper Terminal Connection.

(a) Select **Start → Programs → Accessories → Communications → Hyperterminal**. The Connection Description dialog displays.

(b) Enter ***TOCNET*** in the name field.

(c) Select **OK**. The Connection Description dialog closes and the Connect To dialog displays.

(d) Select **COM1** from the **Connect Using** dropdown.

(e) Select **OK**. Connect To dialog closes, COM1 Properties dialog opens.

(f) Port settings tab:

1 Select ***38400*** from the Bits per second dropdown.

2 Select ***8*** from the Data bits dropdown.

3 Select ***None*** from the Parity dropdown.

4 Select ***1*** from the Stop bits dropdown.

5 Select ***None*** from the Flow control dropdown.

(g) Select ***OK***. COM1 Properties dialog closes, TOCNET- Hyper Terminal window opens.

b. TOCNET Hyper Terminal. The Maintainer is required to login to the eMCSU.

(1) Enter ***maint*** next to mcsu login.

(2) Press **Enter**. The maintainer will be prompted for a password. If the password line does not display but instead has a cursor tabbed to the right, press **Esc**. The maintainer will be prompted to login again.

(3) Enter ***sci*** next to Password.

(4) Press **Enter**. The TOCNET maintenance menu displays.

2–9. TOCNET CONFIGURATION. (Cont.)

c. eMCSU Maintenance Menu. The maintenance menu is used for configuring the eMCSU and performing system maintenance. The actions that the maintainer will have to perform are options 7) Tocnet Maintenance Interface and 5) Configure Networking.

(1) TOCNET Maintenance Interface. This option is used when installing a new or replacement eCAU to the eMCSU. A connection must be made in order to upload the eCAU firmware.

(a) Enter ***7.***

(b) Press **Enter**.

(c) Enter ***pcau cauprom.hex,55aa***.

(d) Press **Enter**. The eCAUs will display "*Software Download in Progress Do Not Disturb.*"

(e) Press **Esc** to return to the eMCSU Maintenance Menu.

(2) Configure Networking. This option is used to assign the IP address, subnet mask and gateway to the eMCSU.

(a) Enter ***5.***

(b) Press **Enter**. The Network Configuration Menu displays.

(c) Enter ***1.***

(d) Press **Enter**. The Network Configuration Editor Menu displays.

(e) Enter ***1.***

(f) Press **Enter** to display the current network settings.

(g) Enter ***1.***

(h) Press **Enter**. The current IP Address displays and the user is asked to enter a new IPv4 Address for Eth0.

(i) Enter the IP address for the eMCSU.

(j) Press **Enter**.

(k) Enter ***2.***

(l) Press **Enter**. The current Netmask displays and the user is asked to enter a new IPv4 Netmask for Eth0.

(m) Enter the network subnet mask.

(n) Press **Enter**.

(o) Enter ***3.***

(p) Press **Enter**. Displays current DHCP settings.

(q) Enter ***No.***

(r) Press **Enter**.

(s) Enter ***b.***

(t) Press **Enter**. The Network Configuration Editor menu displays.

2–9. TOCNET CONFIGURATION. (Cont.)

(u) Enter ***2.***

(v) Press **Enter**. The Gateway Editor menu displays.

(w) Enter ***1.***

(x) Press **Enter**. The Current Gateway information displays.

(y) Enter the assigned IP address for the Gateway.

(z) Press **Enter**.

(aa) Enter ***5***

(ab) Press **Enter**. Changes are written to memory.

(ac) After network restart, enter ***b.***

(ad) Press **Enter.** The TOCNET menu displays.

(3) From the Hyper Terminal window, select **File→Exit**. A confirmation window opens.

(4) Select **Yes**.

(5) Select **No**. The Hyper Terminal window closes.

d. TRIM CAU CONFIGURATION. The TRIM CAU's ID Switch and IP address must be configured to function with TOCNET.

(1) ID Switch**.** The TRIM ID Switch must be set to a unique ID for each TRIM CAU. (Figure 5-18)

(2) The ID Switch is located under a protective cover on the bottom between the J3 and J4 connectors.

(3) The ID Switch setting must correspond to the Trim ID number in the mcsu.ini file. Ensure each TRIM CAU is set IAW the list below.

(a) Driver. Set the top switch to position 1 and the bottom switch to position 1.

(b) Vehicle Commander. Set the top switch to position 1 and the bottom switch to position 2.

(c) Third Crewman. Set the top switch to position 1 and the bottom switch to position 3.

(4) Configuring the TRIM CAU Network Settings.

(a) Connect the TRIM MDB BUS, Ethernet & Maint cable from the serial port on a workstation to the J2 port (left side, bottom) on the TRIM CAU.

(b) Select **Start→Programs→Accessories→Communications →Hyperterminal**. The Connection Description dialog displays.

(c) Enter **TRIM** in the Name field.

(d) Select **OK**. The Connection Description dialog closes and the Connect To dialog displays.

(e) Select **COM1** from the Connect using dropdown.

(f) Select **OK**. The Connect To dialog closes and the COM1 Properties dialog displays.

2–9. TOCNET CONFIGURATION. (Cont.)

(g) Port Settings tab:

1 Select ***38400*** from the Bits per second dropdown.

2 Select ***8*** from the Data bits dropdown.

3 Select ***None*** from the Parity dropdown.

4 Select ***1*** from the Stop bits dropdown**.**

5 Select ***None*** from the Flow control dropdown.

(h) Select **OK**. The COM1 Properties dialog closes and the TOCNET Hyper Terminal window opens.

(i) Cycle power on the TRIM CAU by removing and reattaching the power cable from the J1 port (left side, top; the VC's TRIM CAU J1 port is right side, top).

(j) Enter ***H***.

(k) Press **Enter**. The TCAU/debug/Monitor com.list displays.

(l) Enter ***uip*** from the menu.

(m) Press **Enter**.

(n) Enter the IP address of the TRIM CAU.

(o) Press **Enter**.

(p) Enter ***unm*** from the menu.

(q) Press **Enter**.

(r) Enter the subnet mask is set to 255.255.255.0.

(s) Press **Enter**.

(t) Enter ***ugw*** from the menu.

(u) Press **Enter**.

(v) Enter the IP address of the eMCSU.

(w) Press **Enter**.

(x) Enter ***usp*** from the menu.

(y) Press **Enter**.

(z) Enter the IP address of the eMCSU.

(aa) Press **Enter**.

(ab) In the Hyper Terminal window select **File→Exit**. A confirmation window opens.

(ac) Select **Yes** to disconnect. A save confirmation dialog displays.

(ad) Select **No**. The save confirmation and Hyper Terminal close.

2–9. TOCNET CONFIGURATION. (Cont.)

e. eCAU CONFIGURATION. The eCAU's IP address must be configured to function with TOCNET.

(1) eCAU TFTP Configuration.

(a) Connect cable P1 to the J1 data port on the rear of the eCAU.

(b) Connect the RJ-45 connector to the CF-19 network interface.

(c) Open the CF-19's Network Connections and ensure that the Default Gateway of the CF-19 is the same as the IP address for the eCAU.

(d) Select **Start→Run**. A Run window opens.

(e) Enter ***cmd***.

(f) Select **OK**. The C:\WINDOWS\system32\cmd.exe window opens.

(g) Enter ***cd***. Filepath is changed to the c:\ directory.

1 Download the eCAU.ini and the network.cfg files.

(a) Enter *tftp –i* [IP Address of eCAU] *get ecau.ini* and press Enter. The file is downloaded to the laptop c:. A message will display stating "*Transfer successful: 323 bytes in 1 second, 323 bytes/s.*"

(b) Enter *tftp –i* [IP Address of eCAU] *get network.cfg* and press Enter. File is downloaded to the CF-19. A message will display stating "*Transfer successful: 115 bytes in 1 second, 115 bytes/s.*"

2 Modify the eCAU.ini and the network.cfg file. The downloaded files are read only. The maintainer must change the properties of the files so that the changes can be saved and uploaded back into the eCAU.

(a) Modify the eCAU initialization file.

1 Double-click on the My Computer desktop icon. The My Computer window opens.

2 Double-click on c:. The c:\ window opens.

3 Right-click on the ecau.ini file. A File menu displays.

4 Select Properties.

5 Deselect the Read Only box.

6 Select OK.

7 Right-click on the ecau.ini file. A File menu displays.

8 Select Open With.

9 Select Notepad from the list.

10 Select OK.

11 The ecau.ini opens in Notepad. The most important change to make in this document is the [server] IP Address.

2–9. TOCNET CONFIGURATION. (Cont.)

(b) Edit IP data as required:

1 ip=IP address for the eCAU under configuration.

2 [server]IPAddress=IP address for eMCSU.

(c) Select File→Save.

(d) Select File→Exit.

3 Modify the network configuration file.

(a) Right-click on the network.cfg file. Open the file using Notepad.

(b) Select Properties.

(c) Uncheck the Read Only box.

(d) Select OK.

(e) Right-click on the network.cfg file.

(f) Select Open With.

(g) Select Notepad form the list.

(h) Select OK. A network.cfg – Notepad window opens.

(i) Edit IP data as required:

1 ip=IP address for the eCAU under configuration.

2 Default Gateway Address=IP address for eMCSU.

(j) Select File→Save.

(k) Select File→Exit.

3 Upload the ecau.ini and network.cfg files. Once all modifications have been made to the .ini and .cfg files the next step is to upload the files into the eCAU.

(a) In the c: window enter, *tftp –i [*IP Address of eCAU*] put ecau.ini* and press Enter. The CF-19 displays a message stating “Transfer successful: 323 bytes in 1 second, 323 bytes/s.”

(b) The eCAU restarts. The eCAU displays the new IP address of the eMCSU.

(c) Enter *tftp –i* [IP Address of eCAU] *put network.cfg* and press Enter. The CF-19 displays a message stating “Transfer successful: 116 bytes in 1 second, 116 bytes/s.”

(d) The eCAU restarts. The eCAU displays the new IP address.

(e) Close c: window.

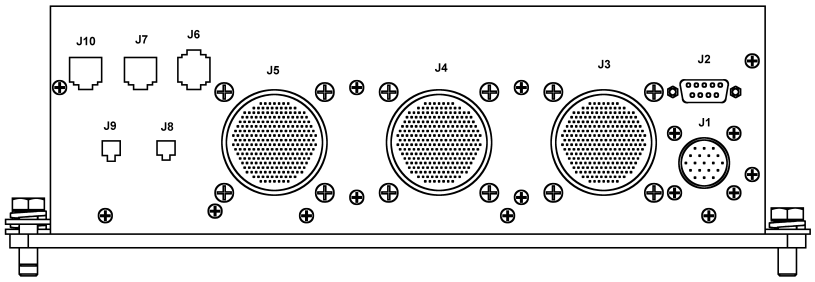
(f) Disconnect cable.

2–10. TOCNET OPERATION PROCEDURES.

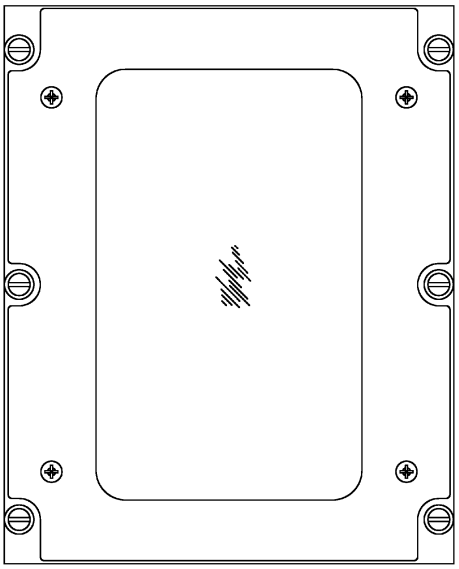
a. This section covers TOCNET procedures that are unique to the AAVC7. Complete operation procedures for TOCNET can be acquired through the manufacture Sanmina-SCI by requesting access via email at tocnet.support@sanmina-sci.com

b. General description: The TOCNET system provides a modular expandable approach for integrating voice and data communications for command and control personnel, and other applications. TOCNET allows the user to combine previously separate communications systems into one integrated system, providing the users with access to all communications assets from a common user station. An enhanced micro central processing unit (eMCSU) with attached enhanced crew access units (eCAUs) and tactical radio and intercom module (TRIM) enable the use and control of intercom, radios, and telephones located within the AAVC-7.

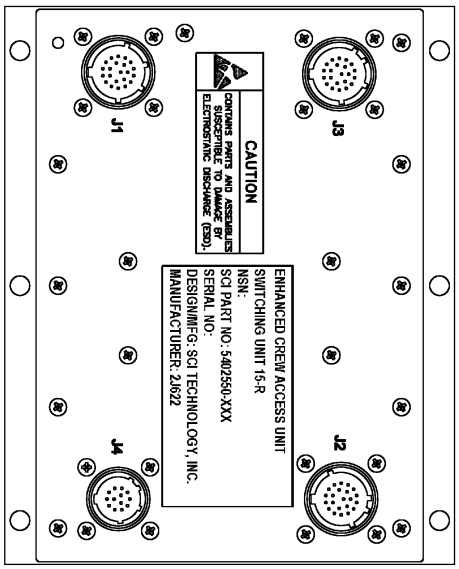
(1) Enhanced Micro Central Switching Unit (eMCSU): Provides the central processing and interface functions for TOCNET system. The 16 Port eMCSU provides sixteen radio/analog ports and sixteen RS-232 serial ports. Each type eMCSU may be identified by the unique part number on the name plate.



(2) Enhanced Crew Access Unit (eCAU): Is one of the primary man-machine interfaces for the TOCNET intercommunication system. Interactive screens are presented to the user on the color LCD display. The user interacts with the system through the Infrared touch panel integrated into the eCAU. The eCAU provides programmable electrical interfaces for use with standard headsets/handsets including ANR, H-250 type handsets, or hand microphones, inputs for push-to-talk switches, a speaker output, and one RS-232 maintenance port.



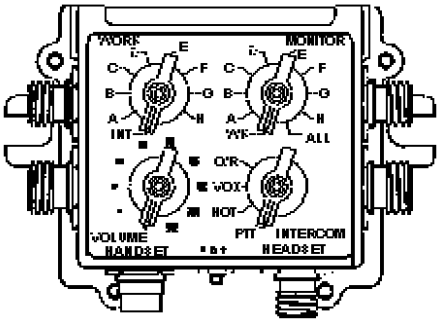
FRONT VIEW



REAR VIEW

2–10. TOCNET OPERATION PROCEDURES. (Cont.)

(3) Tactical Radio and Intercom Module (TRIM): The TRIM CAU provides a simple, low cost operator interface employing knobs and switches. The TRIM CAU is targeted to TOCNET applications/positions, such as a gunner, a vehicle driver, a loadmaster, an observer, or other positions that do not require the full display capability of the CAU and/or where true tactile feedback is desired.

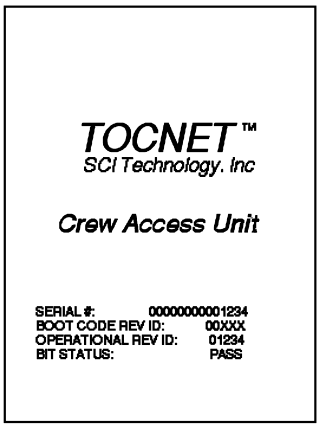


c. Powering up TOCNET

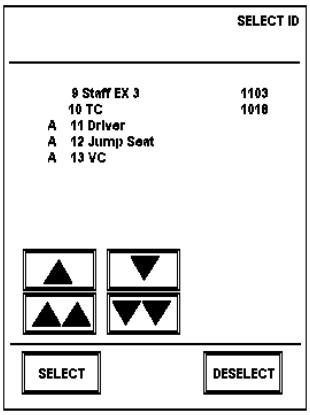
(1) Push down the UPS on/off switch for 3 to 5 seconds. (refer to UPS, Figure 2–15).

(2) Move CB-4 of the AC/PDU to the on position. (refer to AC PDU, Figure 2–14).

(3) The power on default screen will appear on the eCAU screens.



(4) The TOCNET select ID screen will appear on the eCAU screens after approximately 2 minutes. Select the appropriate ID for your position by touching the screen where your desired selection is shown.



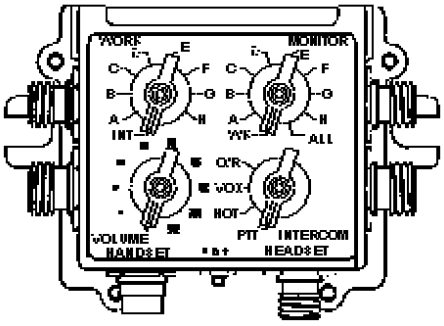
2–10. TOCNET OPERATION PROCEDURES. (Cont.)

NOTE

eCAU Screens are screens use an infrared touch panel. Only light pressure should be used when making selections.

d. Operating Radio and intercom from a TRIM CAU

(1) TRIM CAUs are located at the driver's station, vehicle commander's station and the third crewman's station. The TRIM CAU gives the crewman the ability to communicate intercom between the crew and between staff personnel using a selector switch. The TRIM CAU also gives the crew the ability to communicate through the AN/VRC-89 crew radio system using a separate selector switch.



(2) To communicate over crew intercom set the working selector in the INT position, the MONITOR selector in WK (working) position, PTT selector to HOT and the VOLUME selector to desired level.

(3) To communicate over crew radio A move WORK selector to position A, the MONITOR selector in WK position, PTT selector to HOT and the VOLUME selector to desired level.

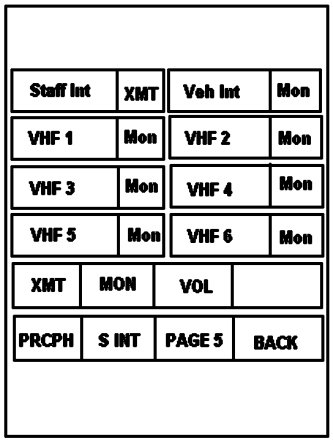
(4) To communicate over crew radio B move WORK selector to position B, the MONITOR selector in WK position, PTT selector to HOT and the VOLUME selector to desired level.

(5) To communicate over staff intercom set the WORK selector to position C, the MONITOR selector in WK position, PTT selector to HOT and the VOLUME selector to desired level.

2–10. TOCNET OPERATION PROCEDURES. (Cont.)

e. Operating Radio and Intercom from a eCAU

(1) CAUs are located at the six staff stations and the troop commander's station. The CAU gives the staff the ability to communicate intercom between the crew and between staff personnel using an infrared touch panel display. The CAU also gives the staff the ability to communicate through the two AN/VRC-89 staff radio, the AN/VRC-89 staff radio and control and talk through the AN/PRC-150 and two AN/PRC-117 radio systems using the infrared touch panel.



(2) To communicate over staff intercom on the upper left corner touch "Staff Int". On the second to last row press "XMT". XMT will appear next to "Staff Int". To communicate over crew intercom on the upper right corner touch "Veh Int". On the second to last row press "XMT". XMT will appear next to "Veh Int". Both Staff and Vehicle intercom can be selected simultaneously. You must deselect transmit on the intercom if you do not wish to communicate over it. Deselect transmit by selecting either vehicle intercom or staff intercom and then press monitor.

(3) To communicate over one of the crew radio assets, touch the screen on the second through to select one of the radio assets. To communicate over "VHF 1" touch the screen where it appears and touch the select "XMT" or "MON" to monitor or transmit over VHF 1 radio.

Section VIII. WINDOWS SERVER OPERATION

2–11. WINDOWS SERVER.

a. JV–5 Windows Server. The Windows Server hosts applications that are shared by all workstations in the AAVC7A1. The shared applications are C2PC Gateway Manager and Openfire. The Windows Server applications are Windows XP Professional, C2PC, C2PC Gateway Manager, RealVNC, Openfire, and McAfee Antivirus. It is the responsibility of the electronic maintainer to configure the Windows Server.

CAUTION

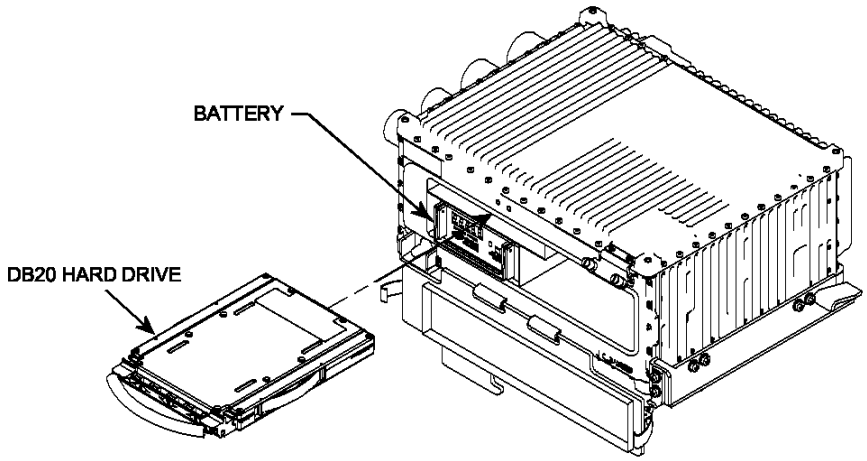
The RHDDC access door is sealed with a D–ring gasket. Take care not to tear or damage this gasket when opening or closing the access door.

(1) Loading an Image.

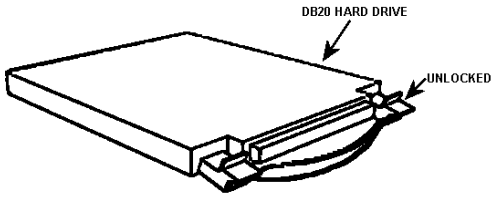
(a) Unlatch the Removable Hard Disk Drive Cartridge (RHDDC) access door.

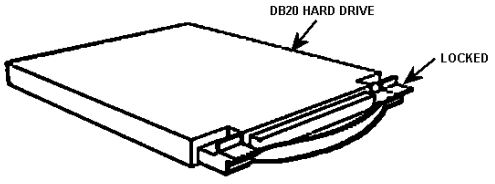
(b) Open the RHDDC access door.

(c) Applying steady pressure, insert the RHDDC into the upper left slot until fully seated.



(d) Push the RHDDC latching handle up to lock the RHDDC in place.





2–11. WINDOWS SERVER. (Cont.)

(e) Close the RHDDC access door.

(f) Secure the RHDDC door latches.

(g) Connect the external DVD drive to the USB adaptor on the JV5 Windows Server.

(h) Insert **AAV JV5 Server, DVD #1** into the external DVD drive.

(i) Toggle the Windows Server power switch to **ON**.

(j) Press and hold the Display Unit (DU) power button for three (3) seconds.

(k) When the boot screen displays, press [**Enter**]. The Setup Utility menu displays.

(l) Using the arrow keys, select **Boot Device menu**.

(m) Using the arrow keys, select the **CD–ROM**.

(n) Select [**Enter**]. The server will begin booting from the CD ROM.

(o) When prompted select **Next**. The Restoration Method box displays.

(p) Select **Initial Workstation Restoration** and select **Next**.

(q) Select **Restore**.

(r) The image may have multiple disks. Switch the disks in the order they are numbered until the imaging process is complete.

NOTE

The imaging process will take approximately 30 minutes.

(2) Screen Calibration.

(a) Select **Start→Programs→UPDD→Calibration**. The calibration screen displays.

(b) Using the stylus, firmly touch the red center of the blue cross hairs. The target moves.

(c) Repeat step (b) for each of the five (5) target points provided.

(d) Press [**Enter**].

(e) Using the stylus, firmly touch **Save & Exit**. The calibration screen closes.

(3) Configure Network Settings.

(a) Open **My Network Places**.

(b) Select **Local Area Connection**.

(c) Select **Internet Protocol (TCP/IP)**.

(d) Select **Properties**.

(e) Enter the IP address for the Windows Server.

(f) Enter the Subnet Mask.

(g) Enter the Default Gateway (IP address of the router).

(h) Select [**Enter**].

2–11. WINDOWS SERVER. (Cont.)

(4) Set the Computer Name.

(a) Open **My Computer**.

(b) Select **Properties**.

(c) Select the **Computer Name** tab.

(d) Select **Change**.

(e) Enter the computer name in the computer name pane.

(f) Select **OK**.

(g) Select **OK** in the System Properties window.

(h) The Computer Name Changes window displays "You must restart your computer before the new settings will take effect. Do you want to restart your computer now?"

(i) Select **Yes**. The computer reboots.

(j) Log in.

b. Openfire. Openfire is a Real–Time Collaboration (RTC) server application. It uses the Extensible Messaging and Presence Protocol (XMPP), a widely adopted open protocol for instant messaging. Openfire is the server application used for hosting Spark messaging.

(1) From the Windows Server desktop launch Openfire.

(2) Select **Launch Admin**.

(3) Set the language to English and select **Continue**.

(4) Enter server settings:

(a) Domain: Computer name

(b) Admin Console Port: 9090 – default

(c) Secure Admin Console Port: 9090 – default

(5) Select **Continue**. The Database Settings pane displays.

(a) Select **Embedded Database**.

(b) Select **Continue**.

(6) Verify that the **Default** radio button is selected. Select **Continue**. The administrator account displays.

(7) Select **skip** when prompted to change the password.

(8) Close Internet Explorer.

(9) Select **Stop** on the Openfire dialog box.

(10) Select **Quit**.

(11) Launch **Openfire**. The following steps are used to configure settings for users, groups, and chat rooms.

(12) Select **Launch Admin**.

(13) Enter **admin** in the username field.

(14) Enter the password for the Windows Server and select **login**. The Openfire Admin Console opens.

2–11. WINDOWS SERVER. (Cont.)

c. Openfire. Openfire is a Real–Time Collaboration (RTC) server application. It uses the Extensible Messaging and Presence Protocol (XMPP), a widely adopted open protocol for instant messaging. Openfire is the server application used for hosting Spark messaging.

(1) Select **Users/Groups→Users→Create New User**. A Create User pane opens.

(2) Enter the **Username**.

(3) Enter the **Password**.

(4) Confirm **Password**.

(5) Select **Create & Create another** if you want additional users.

(6) Once the last user is created, select **Create User**. The User Properties pane opens.

d. Creating Chat Rooms.

(1) Select Group **Chat→Room Administration→Create New Room**. A Create New Room pane opens.

(2) Enter **Room ID**.

(3) Enter **Room Name**.

(4) Enter **Description**.

(5) Select **Save Changes**. A Room Settings pane displaying the new room opens.

e. Creating Groups for users.

(1) Select **Groups**.

(2) Select **Create New Group**.

(3) Enter group Name.

(4) Enter Description (as required).

(5) Select **Create Group**.

(6) Select the **Enable contact list group sharing** radio button.

(7) Enter group name.

(8) Check the box next to **share group with additional users**.

(9) Select **Save Contact List Settings**.

(10) Add users as required to the group.

NOTE

Users must be created before adding them to a group.

Section IX. WORKSTATION LAPTOP OPERATION

2−12. WORKSTATION LAPTOP.

a. Panasonic CF−19. The Panasonic CF−19 with docking station provides digital communications, maps and situational awareness at each of the staff positions in the AAVC7A1. The Panasonic CF−19 software consists of Windows XP Professional, C2PC, VNC Viewer, Spark, and McAfee Antivirus. It is the responsibility of the electronic maintainer to configure the workstation laptops.

(1) Reimage the CF−19. The CF−19 is delivered with the software listed previously as the default image. The following steps are for reimaging the CF−19 due to system failure.

(2) Connect external hardware.

(a) Connect external DVD drive to the CF−19 USB port.

(b) Connect external DVD power adapter to the Convenience Power Outlet (CPO).

(c) Insert AAV Workstation DVD 1 into the external DVD drive.

(d) Power on the CF−19. The Panasonic startup screen displays.

(e) Press the **F2 key**. The Phoenix Setup utility displays.

(3) Load the CF−19 software image.

(a) Select the **Boot** tab.

(b) Select the **USB CDD: TEAC DV−W28EC** option.

(c) If necessary, press **F6** until USB CDD: TEAC DV−W28EC is in the number 1 position.

(d) Select the **Exit** tab.

(e) Select **save values and exit**. A Setup Confirmation dialog displays “Save configuration changes and exit now”.

(f) Select **yes**.

(g) Press **Enter**. The system boots using the DVD drive.

(h) Select **Initial Workstation Restore**.

(i) Follow onscreen prompts until the CF−19 restoration is complete. System restore will take approximately 30 minutes.

(j) The CF−19 reboots.

(k) Select **Ctrl+Alt+Delete** when the Welcome to Window screen displays.

(l) Select **OK** when the “US DEPARTMENT OF DEFENSE WARNING STATEMENT” displays.

(m) After the first reboot, the system will not require any logon credentials. At this point, the system logs on and installs device drivers.

(n) A dialog displays asking to restart now or later.

(o) Select **Yes**.

(p) The CF−19 reboots.

(q) Select **[Ctrl]+[Alt]+[Delete]** when the Welcome to Windows screen displays.

2–12. WORKSTATION LAPTOP. (Cont.)

(r) Select **OK** when the "US DEPARTMENT OF DEFENSE WARNING STATEMENT" displays.

(s) Log in with username and password when the Log On to Windows screen displays. (Figure 3–3)

(t) Select **OK**. Logon Message dialog displays "Your password expires today. Do you want to change it now?"

(u) Select Yes or No IAW Unit SOP.

b. Mounting the CF–19. The CF–19 docking stations are equipped with various ports and connections for adding multiple devices. The CF–19 receives power from the docking stations and connects to the Onboard Vehicle Local Area Network (OVLAN) through the docking stations Network Interface Card (NIC).

(1) CF–19 Installation.

(a) Place the CF–19 into docking station.

CAUTION

Laptop docking station pins can be damaged easily during installation. Use care when attaching laptop to prevent pin damage.

(b) Rotate locking bar to the docked position.

(c) Insert key in docking station. Turn to locked position.

(2) Power On and Log In to the CF–19.

(a) Pull latch up to release the display.

(b) Lift the CF–19 display.

(c) Slide and hold the power switch for one (1) second until the power indicator illuminates.

(d) The CF–19 powers on

CAUTION

Do not slide the power switch repeatedly. Sliding the power switch repeatedly can damage the hard drive.

(e) Press the **[Ctrl]+[Alt]+[Del]** when prompted. The U.S. DEPARTMENT OF DEFENSE WARNING STATEMENT displays.

(f) Select **OK**. The Log On to Windows dialog displays.

(g) Enter User Name and Password.

(h) Select **OK**. The Windows desktop displays.

2−12. WORKSTATION LAPTOP. (Cont.)

(3) Touch Screen Calibration. The calibration tool allows the user to recalibrate the screen. Calibration is necessary when the area touched on the screen is not sufficiently close to the coordinates displayed. The following steps demonstrates how to perform a touch screen calibration.

(a) Select **Start→Programs→Fujitsu Touch Panel (USB)→Touch Screen Calibration Utility**. The Calibration screen displays.

(b) Using the stylus, firmly touch and briefly hold at the center of the red target.

(c) Lift the stylus from the screen and the target moves.

(d) Repeat steps (2) and (3) for each of the nine target points.

(e) Press **Enter**.

(f) Using the stylus, draw on the screen. The screen displays the drawing.

(g) Using the stylus, firmly touch the **Save & Exit** button. The calibration screen closes.

(4) Docking Station Setup. When the CF−19 is connected to the docking station for the first time, the docking station network card drivers must be installed. To install the drivers, perform the following steps:

(a) Attach the CF−19 to the docking station. The Found New Hardware Wizard dialog displays.

(b) Select the **Install the software automatically** (Recommended) radio button.

(c) Select **Next**. The Hardware Installation dialog opens with a warning message.

(d) Select **Continue Anyway**. The Found New Hardware Wizard dialog displays "Completing the Found New Hardware Wizard". (Figure 3−7)

(e) Select **Finish**. The docking station network card is now ready for use.

c. Configuring Network Settings. Network settings are assigned by Information Management Officer or communications officer. The maintainer will configure each workstation with a unique IP address by performing the following steps:

(a) Right−click on **My Network Places** and select **Properties**. The Network Connections window displays.

(b) Select **Local Area Connection**. The Local Area Connection Properties window opens.

(c) Select **Internet Protocol (TCP/IP)**.

(d) Select **Properties**. The Internet Protocol (TCP/IP) Properties window opens. (Figure 3−8)

(e) Enter the following information:

(f) IP Address: CF−19 IP address.

(g) Subnet Mask: Vehicle subnet mask

(h) Default Gateway: Router IP address.

(i) Preferred DNS Server: Leave blank.

(j) Alternate DNS Server: Leave blank.

2-12. WORKSTATION LAPTOP. (Cont.)

(5) Computer Name Configuration. Each workstation must have a unique computer name to effectively communicate on the C2 network. The computer names are part of the CEOI and will be established by higher headquarters. To enter a unique computer name, perform the following steps:

(a) Right-click on **My Computer**.

(b) Select **Properties**. The System Properties window opens.

(c) Select the **Computer Name** tab.

(d) Select **Change**. The Computer Name Changes window opens.

(e) Enter a computer name (i.e. Workstation1).

(f) Select **OK**.

(g) The Computer Name Changes window displays the following message: "You must restart this computer for the change to take effect."

(h) Select **OK**.

(i) Select **OK** in the System Properties window. The Computer Name Changes window opens with the following message: "You must restart your computer before the new settings will take effect. Do you want to restart your computer now?"

(j) Select **Yes**. The computer reboots.

(k) Log in to the system after the successful reboot.

Section X. C4I NETWORK

2–13. NETWORK CONFIGURATION.

a. Components.

(1) Onboard Vehicle Network (OVLAN). The AAVC7A1 Onboard Vehicle LAN (OVLAN) provides a network connection for voice and data assets and is used to facilitate communications during operations.

(2) DuraMAR 1000 Router. The router is the central component of the OVLAN. The router links the vehicle's network with other networks for sharing Command and Control (C2) information.

(3) DuraNET 2955 Switch. The AAVC7A1 is equipped with two (2) DuraNET 2955 switches. One switch connects the enhanced Crew Access Unit (eCAU) and Tactical Radio Intercom Modular CAU (TRIM CAU) to the enhanced Micro Central Switching Unit (eMCSU). The other switch connects the workstations and Windows Server to the router. The switch is configured with no configuration.

(4) Enhanced Position Location Reporting System (EPLRS). EPLRS is a network of radios that sends and receives data, not voice. EPLRS creates a large, wireless network covering great distances.

(5) Server Interconnect Panel. The server interconnect panel is a patch panel that physically connects the workstations, Windows Server, Advanced Field Artillery Tactical Data System (AFATDS), and eMCSU to the main switch or router. The patch panel provides the maintainer with easy access and troubleshooting connections. Table 2–1 lists the ports and devices connected.

Table 2–1. Server Interconnect Panel.

Port Number	Device on Port A	Device on Port B
J1	Router f0/0	Crew EPLRS
J2	Router f2/1	eMCSU
J3	Router f2/2	AFATDS
J4	Router f2/3	Embarked Staff EPLRS
J5	Switch	Spare
J6		
J7		Workstation 1
J8		Workstation 2
J9		Workstation 3
J10		Workstation 4
J11		Workstation 5
J12		Workstation 6
J13		Sixnet
J14		Spare
J15		Windows Server
J16		Spare
J17		
J18	Spare	Spare
J19		
J20		

b. Configure HyperTerminal. HyperTerminal provides an interface for the maintainer to connect to the router using the serial cable. To configure the HyperTerminal application, perform the following steps:

(1) Server Interconnect Panel. The server interconnect panel is a patch panel that physically connects the workstations, Windows Server, Advanced Field Artillery Tactical Data System (AFATDS), and eMCSU to the main switch or router. The patch panel provides the maintainer with easy access and troubleshooting connections. Table 2–1 lists the ports and devices connected.

2-13. NETWORK CONFIGURATION. (Cont.)

(2) Select **Start→Programs→Accessories→Communications→HyperTerminal**. The default Telnet program dialog displays.

(3) The dialog prompt displays "We recommend that you make HyperTerminal your default telnet program. Do you want to do this?". Select **NO**. The New Connection window and Connection Description dialog displays.

(4) Enter a name for HyperTerminal session.

(5) Select **OK**. The Connect To dialog displays.

(6) Select **COM1** from the Connect Using dropdown menu.

(7) Select **OK**. The COM1 Properties window displays.

(8) Select the **Port Settings** tab.

(9) On the Port Settings tab:

(a) Select **9600** from the Bits per second dropdown menu.

(b) Select **8** from the Data bits dropdown menu.

(c) Select **None** from the Parity dropdown menu.

(d) Select **1** from the Stop bits dropdown menu.

(e) Select **None** from the Flow control dropdown menu.

(f) Select **OK**. The session name HyperTerminal window displays.

(10) Press [**Enter**]. The router connection is established.

(11) Enter en and press [**Enter**]. The Password prompt displays.

(12) Enter router *password*

c. Download.

(1) Enter **terminal length 0**.

(2) Press [**Enter**].

(3) From the HyperTerminal menu, select **Transfer→Capture Text**. Capture Text window displays.

(4) Enter a *file name* for the configuration.

(5) Browse and select **Save Location**.

(6) Select **Start**.

(7) Enter show run and press [**Enter**]. The router displays the current configuration.

(8) Select **Transfer→Capture Text→Stop**. The configuration file is now saved as a text file.

(9) Navigate to the file location and open the file.

2-13. NETWORK CONFIGURATION. (Cont.)

d. EDIT ROUTER CONFIGURATION FILE. The router configuration file is a text file that can be edited and uploaded to the router. This is an efficient way to make changes to the network configuration.

(1) Assign IP Addresses

(a) F0/0. The Fast Ethernet 0/0 port is connected to the Crew EPLRS. This is a physical port on the router that connects the VLAN network to the EPLRS network.

1 Scroll through the router configuration text file and find the interface FastEthernet0/0 section.

2 Replace the existing IP address and subnet mask with the new IP address and subnet mask.

(b) VLAN IP address.

1 Scroll through the router configuration text file and find the interface Vlan2 section.

2 Replace the existing IP address and subnet mask with the new IP address and subnet mask.

(2) Switch Ports. The switch ports are used for the main DuraNET 2955 switch on f2/0, the eMCSU on f2/1, AFATDS on f2/2, and Staff EPLRS on f2/3. The network is configured with all switch ports on VLAN 2.

(a) Verify that the following switch ports are configured to access Vlan2:

1 interface FastEthernet2/0

2 interface FastEthernet2/1

3 interface FastEthernet2/2

4 interface FastEthernet2/3

(3) Multicast Groups.

(a) Find the interface Vlan2 section in the router configuration text file.

(b) Replace the multicast group IP address with the new IP address.

(c) Find the interface Vlan2 section in the router configuration text file.

(d) Replace the multicast group IP address with the new IP address.

(4) Routing Statements. A routing statement provides the direction that the data is sent when the router receives a message for a device that is not located on its network. There are two ways to configure routing statements, individual and blanket Individual statements tell the router about specific networks. Blanket statements tells the router when an IP address will be sent to the IP address of the EPLRS from a subnet that is not on your network.

(a) Find the IP classes section in the router configuration text file.

(b) Replace the existing IP route with the new IP route or routes.

2-13. NETWORK CONFIGURATION. (Cont.)

e. Erase Router Configuration. The existing router configuration must be removed to ensure a clean configuration.

NOTE

The same steps may be used to erase one or both of the switches if necessary.

(1) Press [**Enter**]. Router> displays.

(2) Enter **en**. The Password prompt displays. The maintainer has 30 seconds to enter a valid password.

(3) Press [**Enter**]. Password prompt displays.

(4) Enter *password*.

(5) Press [**Enter**]. Router privileged mode is activated and router name# displays.

(6) Enter **write erase**.

(7) Press [**Enter**]. "Erasing the nvram file system will remove all configuration files! Continue? [confirm]" displays.

(8) Press [**Enter**]. "Erase of nvram: complete" displays.

(9) Once the router has been erased, it is ready for a new configuration. To load the new configuration,enter **reload**.

(10) Press [**Enter**]. "Proceed with reload [confirm]" displays.

(11) Press [**Enter**]. The router returns to the factory default settings and the "––– System Configuration Dialog –––Would you like to enter the initial configuration dialog? [yes/no]:" displays.

(12) Enter **No** and press [**Enter**]. The "Would you like to terminate auto install [Yes]?" displays.

(13) Press [**Enter**].

f. Uploading Router Configuration. If the maintainer already has a known, good router configuration, it can be uploaded to the router from HyperTerminal.

(a) Open a HyperTerminal window

(b) Ensure that the router has no configuration prior to uploading a configuration text file.

(c) Enter **en**

(d) Enter **config t**

(e) Press [**Enter**].

(f) Select **Transfer→Send Text File**. A send text file window displays.

(g) Navigate to, and select the router configuration text file to be uploaded.

(h) Select **Open**. The router configuration file uploads.

(i) Enter **Exit**.

(j) Press [**Enter**]. The config(router–if) displays.

(k) Enter **Exit**. The AAV_router# displays.

2-13. NETWORK CONFIGURATION. (Cont.)

(l) To verify the file has uploaded to the router, enter **show run** and press [**Enter**]. The router displays the current router configuration.

(m) Verify the settings.

(n) Enter **write mem**. The router writes the file to memory.

(o) From the HyperTerminal menu, select **File→Exit**. An Exit Confirmation window displays.

(p) Select **Yes**. The Save Connection window displays.

(q) Select **No**. The HyperTerminal window closes.

(r) Press **Enter**. The router returns to AAV_Router(config)#.

CHAPTER 3

MAINTENANCE INSTRUCTIONS

Section I. TROUBLESHOOTING

3–1. GENERAL. This section contains troubleshooting procedures for the Communication and Staff Extension Lights, Maintenance of Batteries, and Rugged Uninterruptible Power Supply (UPS). All other troubleshooting procedures, lube instructions and maintenance procedures for the vehicle equipment and systems are in TM 09674A–10/3. See TM 08670A–10/1 for troubleshooting the M240 Machine Gun.

WARNING

PLACE VEHICLE MASTER SWITCH AND THE APU POWER SWITCH IN THE OFF POSITION BEFORE PERFORMING MAINTENANCE ON DC ELECTRICAL SYSTEM OR EQUIPMENT.

3–1. GENERAL. (Cont.)

Table 3–1. Troubleshooting.

System/Component	Probable Cause	Possible Remedy
A. AUXILIARY POWER UNIT (APU)		
1. APU engine will not crank.	(a) Vehicle master switch OFF.	(a) Turn vehicle master switch ON.
	(b) Vehicle batteries dead.	(b) Slave start vehicle, run (TM 09674A–10/3). If batteries do not hold charge, notify organizational maintenance.
2. APU engine will not start.	(a) Fuel solenoid valve not operating.	(a) Check wiring connections, notify organizational maintenance.
	(b) Fuel pump does not operate.	(b) Notify organizational maintenance.
	(c) Lack of fuel.	(c) Check fuel supply, prime system, notify organizational maintenance.
	(d) Glow plugs not working correctly.	(d) Notify organizational maintenance.
	(e) Air in fuel lines.	(e) Prime system, notify organizational maintenance.
3. APU engine drops in speed.	(a) Too much oil in sump.	(a) Notify organizational maintenance.
	(b) Lack of intake air.	(b) Notify organizational maintenance.
	(c) Fuel starvation.	(c) Notify organizational maintenance.
	(d) Generator overloaded.	(d) Reduce electrical load.
4. APU engine shuts itself off	(a) Fuel solenoid valve or throttle shut solenoid malfunctioning.	(a) Notify organizational maintenance.
	(b) Lack of fuel.	(b) Check fuel level.
	(c) Cooling system overheated (indicated on remote control panel).	(c) Notify organizational maintenance.
	(d) Lack of oil (oil pressure tripped)	(d) Check oil-level and if necessary top off.
5. Excessive black or gray exhaust smoke under load.	(a) Air intake restriction.	(a) Notify organizational maintenance.
	(b) Exhaust system restriction.	(b) Check for exhaust muffler obstructions. Notify organizational maintenance.
	(c) Generator is overloaded.	(c) Check for excessive electrical load.
6. APU engine does not develop full power	(a) Fuel filter clogged.	(a) Notify organizational maintenance.
	(b) Fuel lines obstructed.	(b) Check fuel lines visually for kinked or bent hoses.
	(c) Air filter clogged.	(c) Notify organizational maintenance.

3–1. GENERAL. (Cont.)

Table 3–1. Troubleshooting. (Cont.)

System/Component	Probable Cause	Possible Remedy
B. UNINTERRUPTIBLE POWER SUPPLY (UPS)		
1. Unit does not turn on or unexpectedly shuts down.	(a) Circuit breaker is in the OFF position.	(a) Ensure the circuit breaker is in the ON position.
	(b) Battery is dead.	(b) Remove battery and verify AC source.
	(c) Main power switch is in the OFF position.	(c) Flip the main power switch to the ON position.
	(d) UPS Power Rating exceeded.	(d) Ensure the load connected to the UPS does NOT exceed the UPS Power Rating.
	(e) UPS battery pack is defective and/or not installed correctly.	(e) Verify a good battery pack module is fully inserted and secured in the UPS.
	(f) UPS output cable not connected securely.	(f) Verify the output power cable is securely connected to the UPS.
	(g) UPS COM cable not connected securely.	(g) Verify the connection of the COM cable.
	(h) UPS internal components damaged.	(h) Return for repair.
2. UPS circuit breaker tripped.	Main power to UPS circuit breaker is short circuited.	(a) Turn the main power switch to the OFF position.
		(b) Remove the UPS externally connected load devices.
		(c) Reset the circuit breaker. Do NOT hold circuit breaker ON.
		(d) Turn the main power switch to the ON position.
		(e) If the circuit breaker trips again, return for repair.
CAUTION Charging the UPS battery pack without the engine running will drain the vehicle batteries.		
3. UPS is unable to switch from AC power to battery power.	UPS battery pack module installed incorrectly or has low charge.	(a) Turn the main power switch to the OFF position.
		(b) Verify the battery pack module is fully inserted and screws are torqued. Remove and re-insert the battery pack.
		(c) Charge battery pack module. (1) Start vehicle (TM 09674A–10/3). (2) Ensure main power switch (16, Fig. 2–13) on the DCPDU is in the ON position. (3) Restore AC power to the unit. Allow the battery to charge for four hours.
		(d) Replace the battery pack with a known “fully charged” battery pack module (turn AC breaker off to retest battery operations).
		(e) Flip the main power switch to the ON position.

3–1. GENERAL. (Cont.)

Table 3–1. Troubleshooting. (Cont.)

System/Component	Probable Cause	Possible Remedy
B. UNINTERRUPTIBLE POWER SUPPLY (UPS) (Cont.)		
4. Audible alarm sounds and one of the battery indicators is illuminated.	(a) UPS battery pack module is not charged.	Charge battery pack module. (1) Start vehicle (TM 09674A–10/3). (2) Ensure main power switch (16, Fig. 2–13) on the DCPDU is in the ON position. (3) Restore AC power to the unit and allow the battery to charge for four (4) hours.
	(b) UPS battery pack module has low charge.	(b) There is NO AC Input power available and the battery pack module has little charge remaining. (1) Turn the main power switch to the OFF position. (2) Replace the battery pack module with a known “fully charged” Battery Pack Module. (3) Flip the main power switch to the ON position.
5. Audible alarm continuously sounds with the Overload indicator illuminated.	UPS power rating exceeded.	Output load exceeds 2000W @ 0.8 power factor. Reduce load on output. a. Turn the main power switch to the OFF position. b. Remove UPS externally connected load devices. c. Check if load is damaged (may be overloading UPS). d. Flip the main power switch to the ON position.
6. Audible alarm continuously sounds with the Over Temperature indicator illuminated.	(a) UPS internal heatsink overheating.	(a) UPS internal heatsink temperature is critically high.
	(b) Ambient temperature too high.	(b) Ensure UPS is not operating in ambient temperature above 125°F (50°C). (1) Turn the main power switch to the OFF position. (2) Wait for 10-15 minutes; flip the main power switch to the ON position. (3) Verify the fan is operating properly. (4) Ensure fan is clear of obstructions. (5) If the problem persists, return UPS for repair.

3–1. GENERAL. (Cont.)

Table 3–1. Troubleshooting. (Cont.)

System/Component	Probable Cause	Possible Remedy
B. UNINTERRUPTIBLE POWER SUPPLY (UPS)		
7. Fan is **NOT** forcing air through the unit.	Fan is obstructed.	Ensure the heatsink fins are free from any foreign objects. a. Turn the main power switch to the ON position. b. Reset AC circuit breaker, if needed. c. Turn the main power switch to the OFF position then ON. d. Ensure the heatsink fins are free from any foreign objects. e. If the problem persists, return UPS for repair.
8. Audible Alarm sounds and the "ON INT DC" indicator is illuminated.	UPS power source low.	a. Verify the unit is plugged into a known good AC power source. b. Verify a known good battery pack module is fully inserted and secured in the UPS.
9. Audible Alarm sounds and the AC line indicator is illuminated.	UPS power source low.	a. Verify the unit is plugged into a known good AC power source. b. Verify the output power cable is securely connected to the UPS. c. Verify a known good battery pack module is fully inserted and secured in the UPS.

Section II. MAINTENANCE PROCEDURES

3–2. STAFF EXTENSION LIGHTS.

a. Removal. (Figure 3–1)

(1) Holding base of staff extension light (3) turn staff extension light cover (1) approximately one-eighth turn counterclockwise. Remove cover (1) from base (3).

(2) Press in bulb (2) and turn counterclockwise approximately one-quarter turn. Remove bulb (2) from receptacle on base (3). If needed, replace bulb (2) with replacement bulb (Item 1, Appx C).

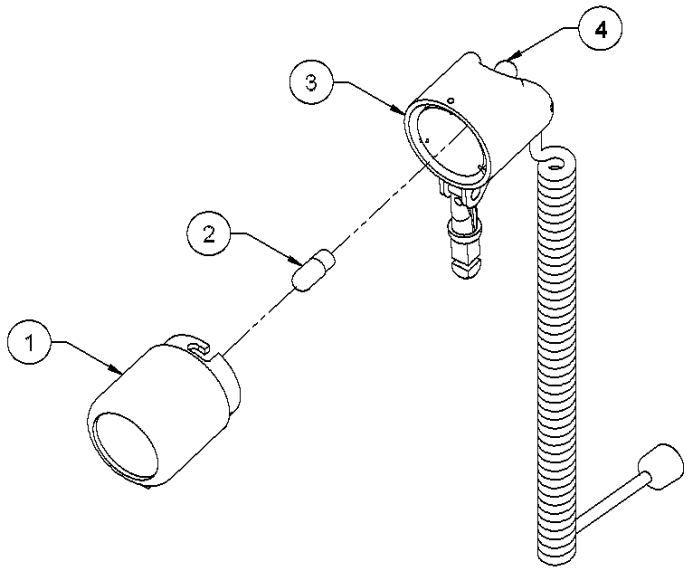


Figure 3–1. Model of Staff Extension Light.

b. Installation. (Figure 3–1)

(1) Insert replacement bulb (2) into receptacle on base (3).

(2) Press in bulb (2) and turn approximately one-quarter turn clockwise. Perform function check as follows:

(a) Place vehicle master switch ON.

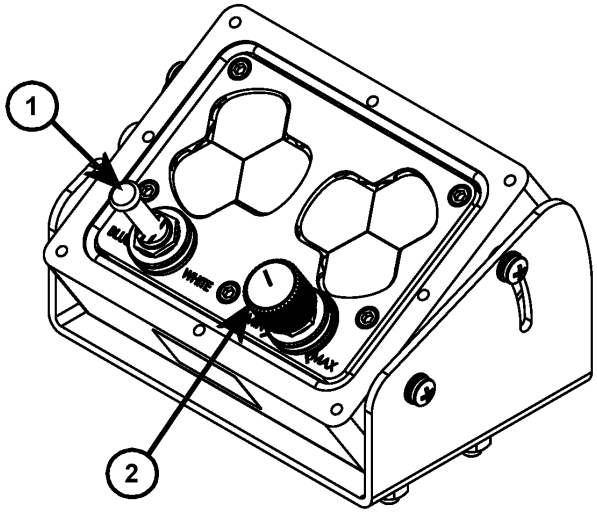
(b) Move DC power distribution circuit breaker switch CB15 into the up position. Move DC power distribution circuit breaker switch CB12 into the up position.

(c) Press ON/OFF detent button (4) to illuminate the staff extension light. If the staff extension light does not function, notify organizational maintenance.

(3) Install staff extension light cover (1). Holding base of staff extension light (3), insert staff extension light cover (1) on base (3). Press in and turn staff extension light cover (1) approximately one-eighth turn clockwise.

3–3. CABIN LIGHT ASSEMBLY.

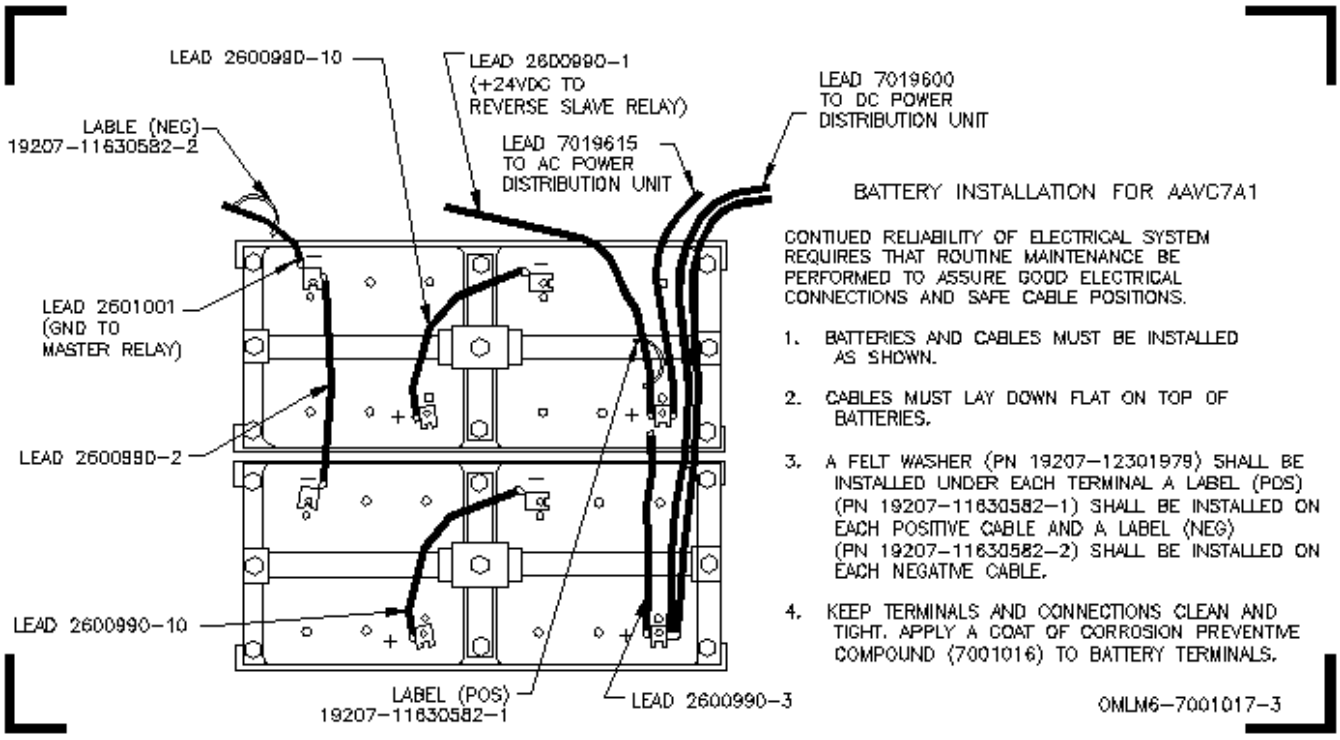
a. There are no maintenance procedures for the cabin light assembly (see below). If unserviceable, notify organizational maintenance.



3–4. MAINTENANCE OF BATTERIES.

a. Cleaning of Battery Terminals. See TM 09674A–10/3.

b. Hooking Up Batteries. Batteries should be hooked up as shown on battery instruction plate above the battery box (shown below). If discrepancies are found, notify organizational maintenance.



3–5. MAINTENANCE OF RUGGED UPS.

a. Inspection.

(1) Ensure the unit is clean with no fluid spills and nothing is stored on the unit.

b. Cleaning.

CAUTION

Do NOT immerse any part of the device in water. Do not use ketones (MEK, acetone, etc.). Avoid using abrasives on the device.

(1) The 2000-Watt Rugged-UPS product and its accessories are chemically resistant to most common cleaning solutions and non-caustic detergents. The following list includes approved cleaning solutions: 90% isopropyl alcohol (Item 2, Appx C), soap and water, and chlorine bleach (Item 3, Appx C) (30 ml/water).

(2) Clean the device and cables with a soft damp cloth and the cleaning agents mentioned.

CHAPTER 4

CREW FUNCTIONS

Section I. DEMOLITION TO PREVENT ENEMY USE

4–1. DEMOLITION TO PREVENT ENEMY USE. Instructions for the general demolition of the vehicle and its contents may be found in TM 09674A–10/3. In addition to items listed in TM 09674A–10/3, destroy the following items:

a. Command Communication System components.

b. APU and APU control panel.

APPENDIX A

REFERENCES

A–1. SCOPE. This appendix lists all forms and technical manuals referenced in this manual and repeats those listed in TM 09674A–10/3.

A–2. FORMS.

NAVMC 10393	Tracked Vehicle Daily Log
NAVMC 10394	Tracked Vehicle Monthly Log
NAVMC 10772	Recommended Change to Technical Publication

A–3. TECHNICAL MANUALS.

TM 09674A–10/3	Operator's Manual, AAV7A1
AR–380–40	Policy for Safeguarding and Controlling (COMSEC) Information
SB–725–1300–1	Requisition and issue of Cryptographic Equipment: Destroying; Incendiary; TH4, MIA2, Grenade, Hand, Incendiary: TH3, AN–M14; Document Destroyer, Emergency, Incendiary; M4, File Destroyer, ABC–M4
TM 09674A–25&P/4	Maintenance Instructions and Repair Parts List Organizational, Intermediate, and Depot, Assault Amphibious Vehicle, Model 7A1, AAV7A1
TM 07268B–25P/2	Maintenance Instructions and Repair Parts List Organizational, Intermediate, and Depot, Assault Amphibious Vehicle, Command Model 7A1, AAVC7A1
TM 4700–15/1	Marine Corps Tactical Equipment Record Procedure: Record Maintenance
FM 9–207	Operation and Maintenance of Army Materiel in Extreme Cold Weather, 0 to –65
TM 08670A–10/1	Operator's Manual; Machine Gun 7.62MM, M240, M240C, M240E1
TM 9–1305–200	Small–Arms Ammunition
TM 11–5810–256–OP–4	Communications Security Equipment for Tracked Vehicles
TM 11–5855–311–12&P–1	Operator's Manual for Viewer, AN/VAS–5 DVE
TM 08848A–10/2	Radio Set AN/VSQ–1 (EPLRS)
SL–3–08853_	Components Lists (EPLRS)
SL–3–09668_	Radio Set AN/VRC–891
SL–3–10661_	OS–302/V
SL–3–10656_	Radio Set AN/VSQ–2C(V)2
TM 11–5820–890–10–1	SINCGARS Ground Combat Net Radio – ICOM
TM 3080–25/1	Maintenance Instructions, Organizational Intermediate and Depot for Assault Amphibian Vehicle AAV7A1 Corrosion Control
TM 11–5820–890–20–2	Technical Manual Unit Maintenance Manual Ground ICOM Radio Sets
TM 11–7010–326–10	Computer Set, Digital
TM 10597A–OR/4	AN/PRC-117F(C) Manpack Radio
TM 10822A-10/1 (EDO)	OPN MNL Manpack Radio AN/PRC-150
SL–3–09880_/09880_	DEF AD GPS REC AN/PSN-13 & 13A
TM 09880C-OI	SAT Signals Navig AN/PSN-13
TM 10661A-12/1	OS-302/U COMM GRP, Satellite

APPENDIX B

STOWAGE AND SIGN GUIDE

B–1. SCOPE. This appendix shows the locations for stowage of equipment and materiel that are unique to the AAVC7A1 and supplements the information provided in TM 09674A–10/3.

B–2. GENERAL. Figure B–1 and Figure B–2, Sheets 1 and 2, show the location of decals and stencils used on the vehicle. Most of these signs mark the places where equipment should be stowed. Some are cautions or warnings needed to operate the vehicle safely. Signs outlined with boxes are decals. Signs not outlined with boxes are stencils.

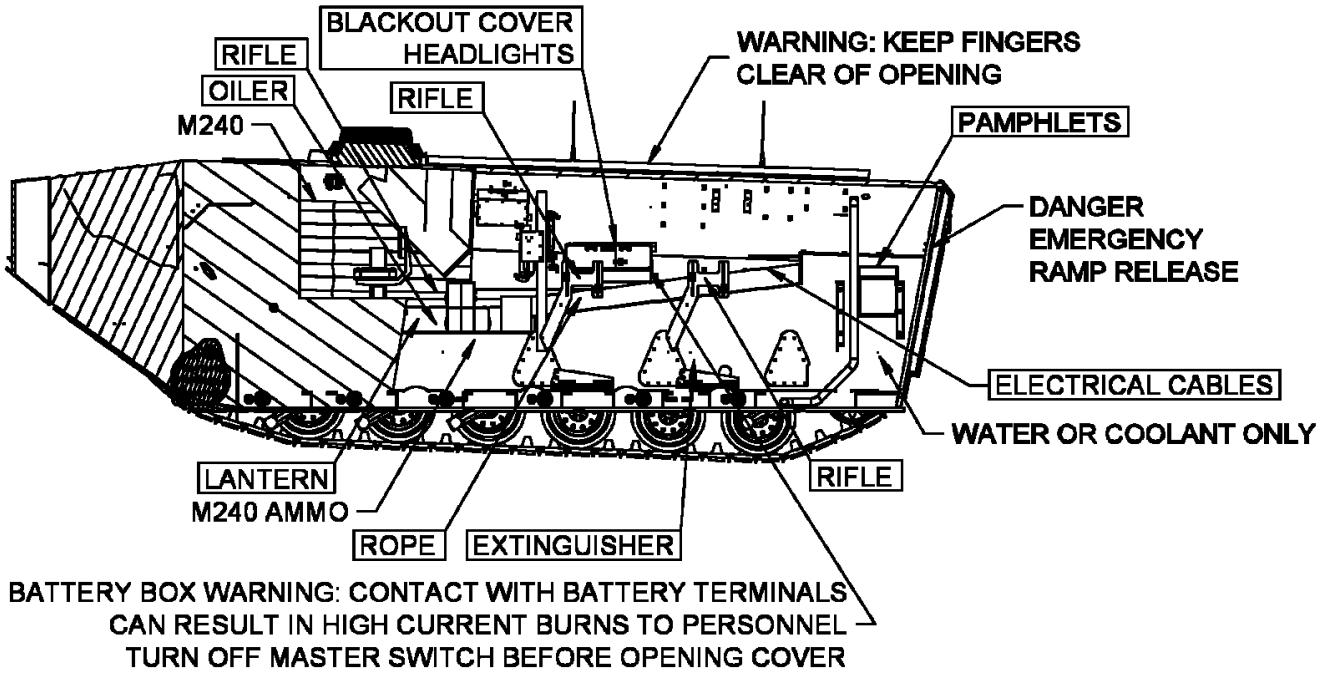


Figure B–1. Starboard Interior View.

B–2. GENERAL. (Cont.)

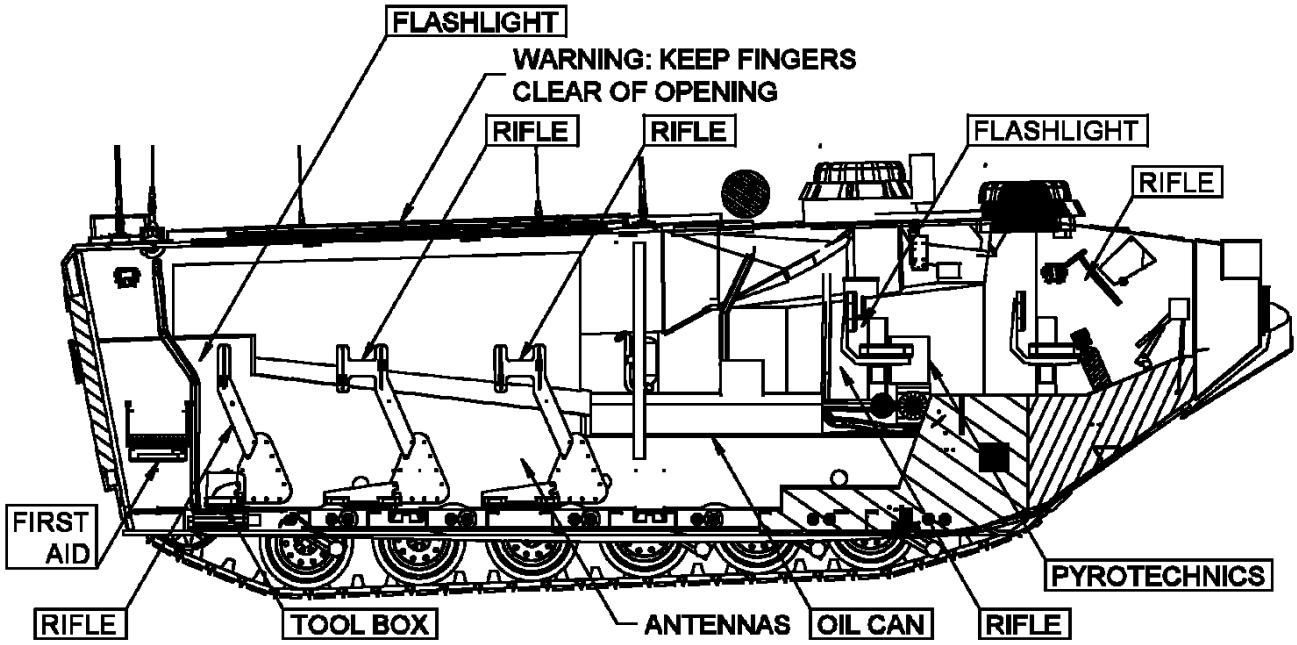


Figure B–2. Port Interior View. (Sheet 1 of 2).

B–2. GENERAL. (Cont.)

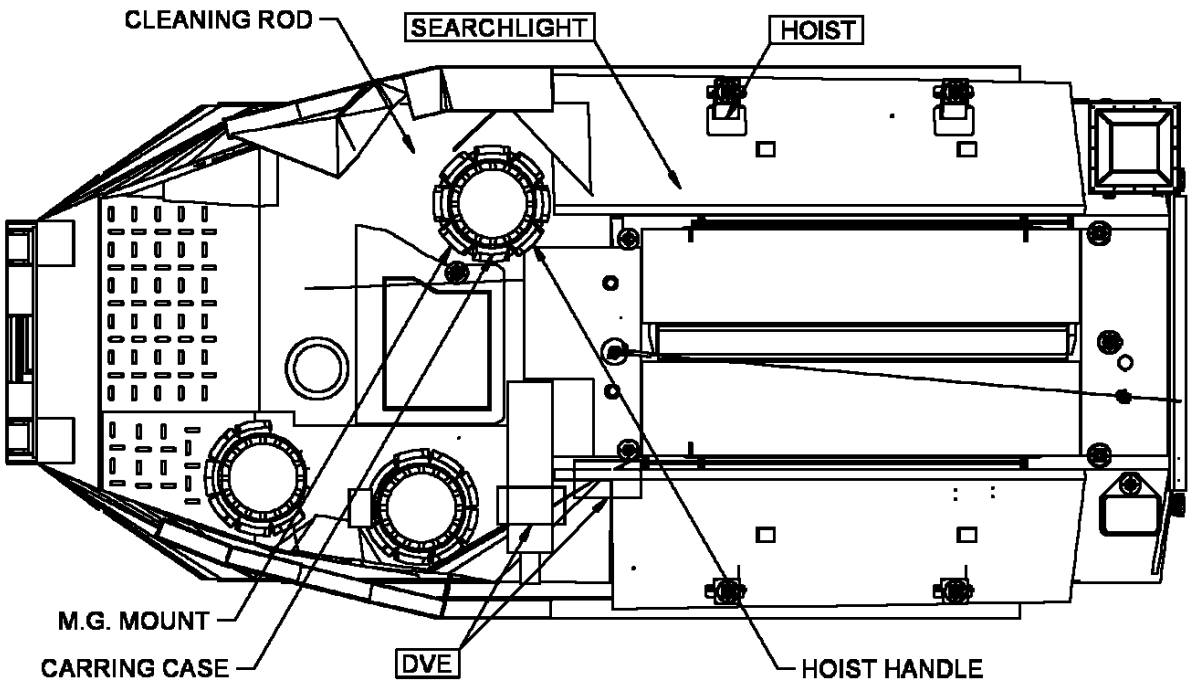


Figure B–2. Port Interior View. (Sheet 2 of 2).

APPENDIX C

EXPENDABLE SUPPLIES AND MATERIALS LIST

NOTE

This appendix lists only those expendable supplies required to maintain the AAVC7A1 unique equipment. For a comprehensive list of expendable supplies and materials utilized throughout the AAV7A1 family of vehicles, refer to Appendix C, TM 09674A–10/3.

C–1. SCOPE. This appendix lists expendable supplies and materials you will need to operate and maintain the AAVC7A1 vehicle.

a. Column 1 – ITEM NUMBER. Specifies a number assigned to each item as it appears in the list. Numbers are assigned in sequence and are for reference purposes only.

b. Column 2 – NATIONAL STOCK NUMBER. This is the National Stock Number (NSN) assigned to the item.

c. Column 3 – ITEM IDENTIFICATION. Provides the item name and description.

d. Column 4 – Unit of Measure (U/M). Indicates the Unit of Measure (U/M) used in performing the actual maintenance function. This measure is expressed by a two character alphabetical abbreviation (e.g., ea, qt, pt).

e. Column 5 – Quantity Used in Unit. List the total quantity of an item required for full functional operation of the end item, if applicable.

(1) Item	(2) National Stock Number	(3) Item Identification	(4) U/M	(5) QTY
1	5980-01-525-9336	Lamp	ea	6
2	6505-00-655-8366	Isopropyl Rubbing Alcohol, USP	bt	AR
3	6850-00-063-2841	O-B-420B, Bleach	dr	AR

APPENDIX D

COMPONENTS LIST

(Supplement to Appendix D, TM 09674A–10/3)

PREFACE

SCOPE

This appendix lists all components and accessories for collection−type supply items, such as major combinations, systems, groups, outfits, kits, sets or assortments. The components to be issued with the end item are identified under the heading of "SUPPLY SYSTEM RESPONSIBILITY" and when required, under the heading "COLLATERAL MATERIEL". End items requiring collateral materiel are governed by whether the end item is initial or replacement issue. The Commander, Marine Corps Logistics Base, Albany, Georgia 31704−5000, will direct whether the issue of the end item is with collateral materiel or without collateral materiel. Those items listed under the "USING UNIT RESPONSIBILITY" heading are to be requisitioned separately through the supply system when applicable. Using Units are also responsible for requisitioning the required publications to support the end item identified by the ID number shown on the cover of this manual. The end item will be complete when the total quantity of items, as applicable, shown in the components list is on hand.

LIST OF COMPONENTS

This list comprises the major portion of this appendix. The following data is presented to aid in item identification.
Item Number. Specifies a number assigned to each item as it appears in the list. Numbers are assigned in sequence and are for reference purposes only.
Stock Number. Furnishes the National Stock Number (NSN) assigned to the item.
Item Identification. Provides the item name and description listed under the headings of "SUPPLY SYSTEM RESPONSIBILITY," "COLLATERAL MATERIEL" or "USING UNIT RESPONSIBILITY."
Quantity Used in Unit. Lists the total quantity of an item required for full, functional operation of the end item.

SUPPLY SUPPORT CATEGORIES

Supply System Responsibility (SSR). The SSR is a list of items that are furnished with and must be turned in with the end item. Any item requiring replacement is the responsibility of the holding organization or using unit.
Collateral Materiel (CM). The CM is a list of items that are supplied with the initial issue of the end item and are retained by the unit.
Using Unit Responsibility (UUR). The UUR is a list of items that will not be issued with the end item. They must be requisitioned, as required, through the supply system by the using unit or holding organization.
Embarked Unit Responsibility (EUR). The UUR is a list of items that are provided by the embarked unit.

5TH ECHELON REHABILITATION PROGRAM

Major items returned under this program will be evacuated under the provision(s) of the applicable Marine Corps Order(s) with the items listed under Supply System Responsibility. Rebuild and replacement under a 5th Echelon rehabilitation program will be limited to these items only. Those items under the heading "COLLATERAL MATERIEL" and using unit items shall be held by using organizations for application to the replacement end items.

REQUISITIONING OF PUBLICATIONS

Publications stocked by the Marine Corps shall be requisitioned as set forth in the current editions of MCO P5600.31, Marine Corps Publications and Printing Regulations and MCO P4400.84, Marine Corps Unified Materiel Management Systems (MUMMS), Special Programs Manual. Failure to comply with these instructions may result in return of the requisition or delay in processing.

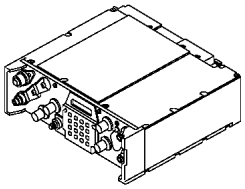
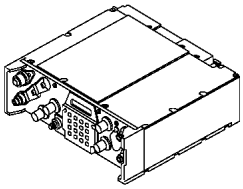
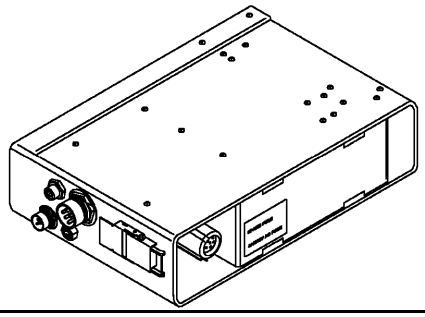
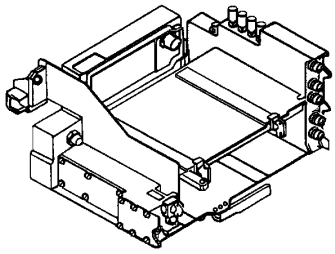
MISCELLANEOUS

For full information concerning in the Marine Corps Stocklist publications, see the current edition of MCO P5215.17, The Marine Corps Technical Publication System.

COMPONENTS INVENTORY SHEETS (APPENDIX E)

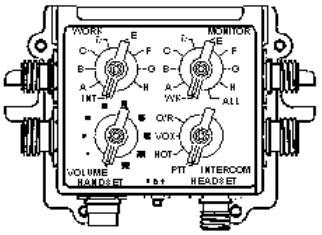
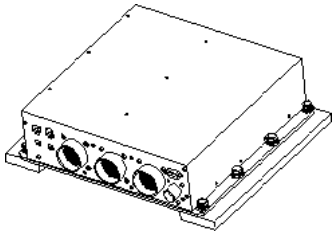
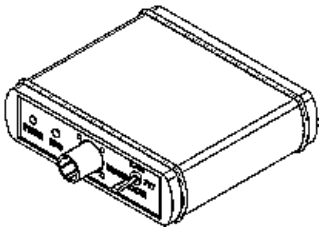
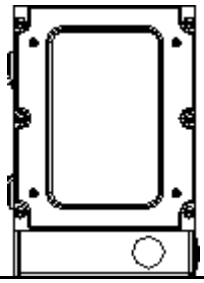
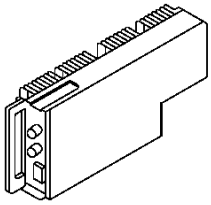
Components Inventory Sheets may be used for monthly inspection and may be reproduced locally by the user as required. The user may indicate in the first column the month of the first inventory.

COMPONENTS LIST

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI**					
ITEM NO		**QTY**	**ITEM NO**		**QTY**
1.	NOMENCLATURE OR DESCRIPTION: **RECEIVER–TRANSMITTER, RADIO RT–1694** NSN: **5820–01–496–3523** PN: **ON672486–02** DWG OR SPEC NO: **NA** CAGE: **14304** INSTALLED LOCATION: **STARBOARD RADIO RACK** STOWED LOCATION: **NA** WEIGHT: **17.2 LBS (7.8 kg)** 	1	3.	NOMENCLATURE OR DESCRIPTION: **RECEIVER–TRANSMITTER, RADIO RT–1796** NSN: **5820–01–521–0291** PN: **10513–1000–07** DWG OR SPEC NO: **NA** CAGE: **14304** INSTALLED LOCATION: **STARBOARD RADIO RACK** STOWED LOCATION: **NA** WEIGHT: **17.2 LBS (7.8 kg)** 	2
2.	NOMENCLATURE OR DESCRIPTION: **POWER SUPPLY RF–5850–PS001** NSN: **6130–01–519–6013** PN: **RF–5850–PS001** DWG OR SPEC NO: **NA** CAGE: **14304** INSTALLED LOCATION: **ATTACHED TO RT–1694 AND RT–1796, ITEMS #1 and #3** STOWED LOCATION: **NA** WEIGHT: 	3	4.	**AMPLIFIER, ADAPTER** NSN: **5895–01–188–8819** PN: **80063–A3013365–1** 	3

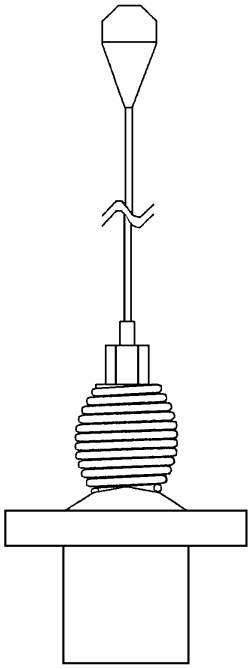
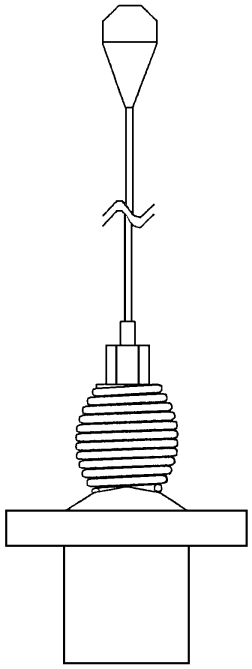
COMPONENTS LIST (Cont.)

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI** (Cont.)

ITEM NO		QTY	ITEM NO		QTY
5.	NOMENCLATURE OR DESCRIPTION: **TACTICAL OPERATIONS CENTER INTERCOMMUNICATIONS SYSTEM (TOCNET)** NSN: **5895–01–544–0671** PN: **5459101** DWG OR SPEC NO: **5459101** CAGE: **2J622** INSTALLED LOCATION: **CREW POSITION** STOWED LOCATION: **NA** WEIGHT: CONSISTS OF:	1	5. (Cont.)	NOMENCLATURE OR DESCRIPTION: **TACTICAL RADIO INTERCOM MODULAR CREW ACCESS UNIT** NSN: **5895–01–566–0958** PN: **5402350–001** 	3
	NOMENCLATURE OR DESCRIPTION: **ENHANCED MICRO CENTRAL SWITCHING UNIT** NSN: **5895–01–544–8296** PN: **5402100–001**	1			
	NOMENCLATURE OR DESCRIPTION: **ENHANCED MICRO CENTRAL SWITCHING UNIT** NSN: **5895–01–544–8296** PN: **5402100–001** 	1		NOMENCLATURE OR DESCRIPTION: **USB JACK BOX** NSN: **5935–01–592–5404** PN: **7019472** 	6
	NOMENCLATURE OR DESCRIPTION: **ENHANCED CREW ACCESS UNITS** NSN: **5895–01–544–8314** PN: **5402550–001** 	7	6.	NOMENCLATURE OR DESCRIPTION: **AMPLIFIER–FREQUENCY MULTIPLIER** NSN: **5895–01–407–2627** PN: **80063–A3213357–1** 	4

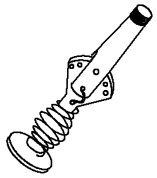
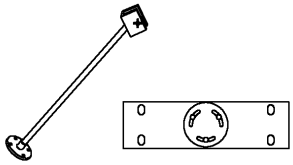
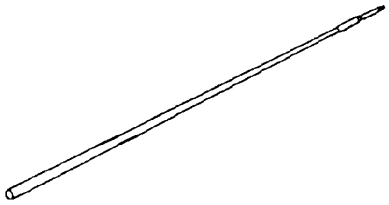
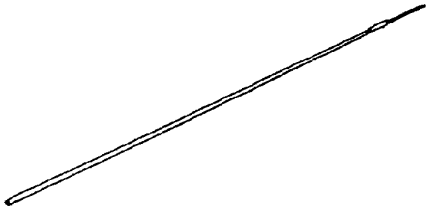
COMPONENTS LIST (Cont.)

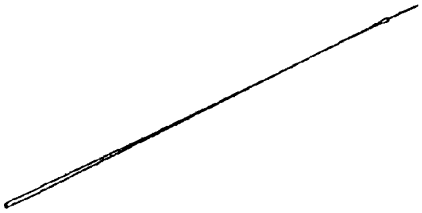
GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI** (Cont.)

ITEM NO		QTY	ITEM NO		QTY
7.	NOMENCLATURE OR DESCRIPTION: **ANTENNA, SURVIVABLE LOW PROFILE, AS–3916/VRC** NSN: **5985–01–353–4943** PN: **A3207487–1** DWG OR SPEC NO: **80063–A3207487–1** CAGE: **80063** INSTALLED LOCATION: **EXTERIOR** STOWED LOCATION: **PORT SIDE, END OF 5–STATION RACK, RIGHT–HAND SIDE (ANTENNA ELEMENT ONLY)** WEIGHT: **5.3 LBS** 	3	8.	NOMENCLATURE OR DESCRIPTION: **ANTENNA, SURVIVABLE LOW PROFILE, AS–3916/VRC W/ GPS** NSN: **5985–01–592–4346** PN: **7019476** DWG OR SPEC NO: **7019476** CAGE: **0MLM6** INSTALLED LOCATION: **EXTERIOR** STOWED LOCATION: **PORT SIDE, END OF 5–STATION RACK, RIGHT–HAND SIDE (ANTENNA ELEMENT ONLY)** WEIGHT: **5.3 LBS** 	3

COMPONENTS LIST (Cont.)

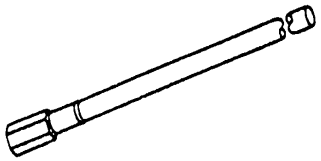
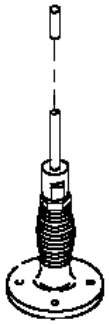
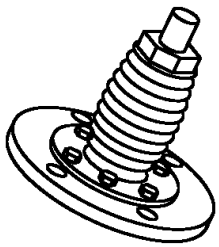
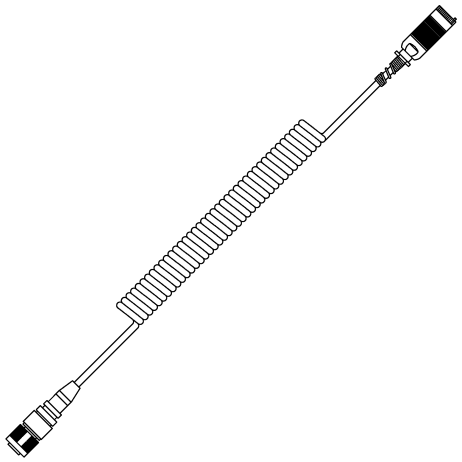
GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI** (Cont.)

ITEM NO		QTY
9.	NOMENCLATURE OR DESCRIPTION: **KIT FOR AAVC7A1** NSN: **NA** PN: **NA** DWG OR SPEC NO: **NA** CAGE: **23657** INSTALLED LOCATION: **EXTERIOR** STOWED LOCATION: **NA** WEIGHT: **26.5 LBS** KIT CONSISTS OF:	6
	NOMENCLATURE OR DESCRIPTION: **ADAPTER, ANTENNA TO ANTENNA BASE** PN: **01365–93010B0000** NSN: **5985–01–422–8525**	1
		
	NOMENCLATURE OR DESCRIPTION: **WHIP HOLD DOWN BRACKET** NSN: **5985–01–481–7038** PN: **01365–93010L0000**	1
		
	NOMENCLATURE OR DESCRIPTION: **ANTENNA ELEMENT** NSN: **5985–00–733–6045** PN: **AT–1042/U**	1
		
	NOMENCLATURE OR DESCRIPTION: **ANTENNA ELEMENT** NSN: **5985–00–733–6044** PN: **AT1041/U**	1
		

ITEM NO		QTY
9. (Cont.)	NOMENCLATURE OR DESCRIPTION: **ANTENNA ELEMENT** NSN: **5985–00–733–6043** PN: **AT1040/U**	1
		
	NOMENCLATURE OR DESCRIPTION: **ANTENNA ELEMENT** NSN: **5985–00–733–6042** PN: **AT1039/U**	1
		
	NOMENCLATURE OR DESCRIPTION: **WHIP END PROTECTOR** NSN: **5985–01–516–7225** PN: **01365–9301N0000**	1
		
	NOMENCLATURE OR DESCRIPTION: **BASE, ANTENNA SUPPORT, PLRS** NSN: **5985–01–481–7035** PN: **01365–93010G0000**	1
		

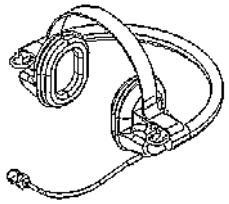
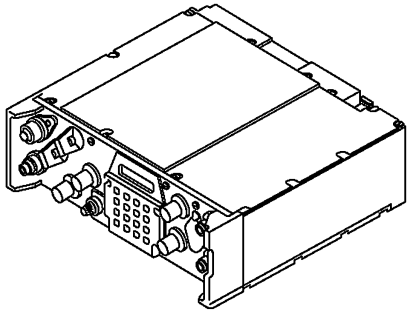
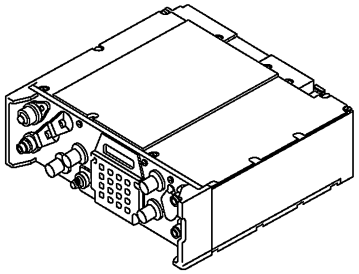
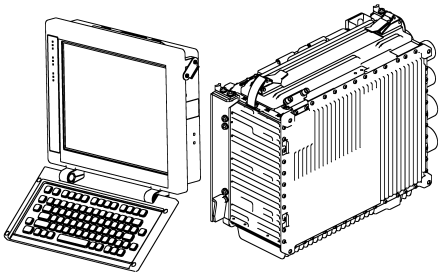
COMPONENTS LIST (Cont.)

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI** (Cont.)

ITEM NO		QTY	ITEM NO		QTY
10.	NOMENCLATURE OR DESCRIPTION: **ANTENNA EPLRS, AS–3449/VSQ–1** NSN: **5985–01–183–9462** PN: **A3005031** DWG OR SPEC NO: **A3005031** CAGE: **80063** INSTALLED LOCATION: **EXTERIOR, PORT, AFT** STOWED LOCATION: **NA** WEIGHT: **6.0 LBS** EPLRS ANTENNA CONSISTS OF:	1	11.	NOMENCLATURE OR DESCRIPTION: **ANTENNA**, **4310 UHF** NSN: **5985–01–597–9852** PN: **7019477** DWG OR SPEC NO: **0MLM6–7019477** CAGE: **0MLM6** INSTALLED LOCATION: **EXTERIOR, AFT, PORTSIDE** STOWED LOCATION: **NA** WEIGHT:	1
	NOMENCLATURE OR DESCRIPTION: **ANTENNA ELEMENT, PLRS** NSN: **5985–00–733–6043** PN: **80063–A3005068–1** 	1			
	NOMENCLATURE OR DESCRIPTION: **BASE, ANTENNA SUPPORT, PLRS** NSN: **5985–01–166–9128** PN: **80058–AB–1284/VSQ–1** 	1	12.	NOMENCLATURE OR DESCRIPTION: **HEADSET, CABLE ASSEMBLY** NSN: **5995–01–592–4917** PN: **7019417** DWG OR SPEC NO: **7019417** CAGE: **0MLM6** INSTALLED LOCATION: **DRIVER, 3rd CREWMAN, VEHICLE COMMANDER, TROOP COMMANDER, AND WORKSTATIONS** STOWED LOCATION: **NA** WEIGHT: **2.0 LBS** 	10

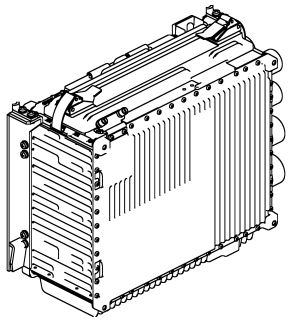
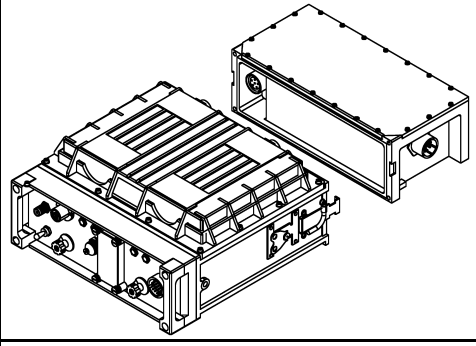
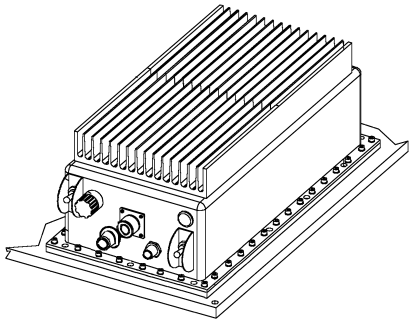
COMPONENTS LIST (Cont.)

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI** (Cont.)

ITEM NO		QTY	ITEM NO		QTY
13.	NOMENCLATURE OR DESCRIPTION: **HEADSET, MICROPHONE** NSN: **4240–01–592–4913** PN: **7019433** DWG OR SPEC NO: **7019433** CAGE: **0MLM6** INSTALLED LOCATION: **WORKSTATIONS** STOWED LOCATION: **SEAT BACK POUCH** WEIGHT: 	7	15.	NOMENCLATURE OR DESCRIPTION: **RADIO SET, AN/VRC–92** NSN: **5820–01–421–2605** PN: **A3251626–1** DWG OR SPEC NO: **NA** CAGE: **80063** INSTALLED LOCATION: **MID AFT STARBOARD SIDE** STOWED LOCATION: **NA** FOR COMPONENTS SEE: **SL–3 09471B** 	2
14.	NOMENCLATURE OR DESCRIPTION: **RADIO SET, AN/VRC–89** NSN: **5820–01–420–6619** PN: **A3251623–1** DWG OR SPEC NO: **NA** CAGE: **80063** INSTALLED LOCATION: **MID AFT STARBOARD SIDE** STOWED LOCATION: **NA** WEIGHT: FOR COMPONENTS SEE: **SL–3 09668B** 	4	16.	NOMENCLATURE OR DESCRIPTION: **COMPUTER SET, DIGITAL, BLUE FORCE TRACKER** NSN: **7010–01–554–2707** PN: **9800–07060–9030** DWG OR SPEC NO: **NA** CAGE: **1RWE7** INSTALLED LOCATION: **PORT SIDE** STOWED LOCATION: **NA** WEIGHT: 	1

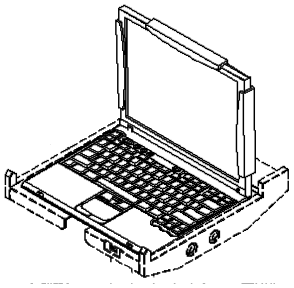
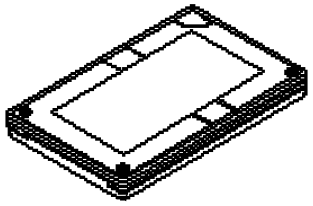
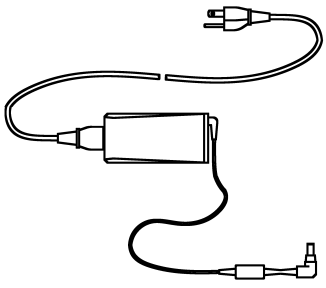
COMPONENTS LIST (Cont.)

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI** (Cont.)

ITEM NO		QTY	ITEM NO		QTY
17.	NOMENCLATURE OR DESCRIPTION: **V5 DATA SERVER** NSN: **7010–01–556–2028** PN: **4800–07060–9045** DWG OR SPEC NO: **NA** CAGE: **1RWE7** INSTALLED LOCATION: **RADIO RACK, PORT SIDE** STOWED LOCATION: **NA** WEIGHT: 	1	19.	NOMENCLATURE OR DESCRIPTION: **RADIO SET AN/VSQ–2C(V)2** NSN: **5820–01–462–8411** PN: **AN/VSQ–2(V)2** DWG OR SPEC NO: **NA** CAGE: **80063** INSTALLED LOCATION: **AFT STARBOARD SIDE** STOWED LOCATION: **NA** WEIGHT: FOR COMPONENTS SEE: **SL–3 10656A** 	1
18.	NOMENCLATURE OR DESCRIPTION: **SATELLITE COMMUNICATIONS SYSTEMS GROUP OS–302\U** NSN: **5895–01–468–1938** PN: **OS–302/U** DWG OR SPEC NO: **NA** CAGE: **80058** INSTALLED LOCATION: **INTERIOR AFT STARBOARD SIDE** STOWED LOCATION: **NA** WEIGHT: FOR COMPONENTS SEE: **SL–3–10661A** 	1			

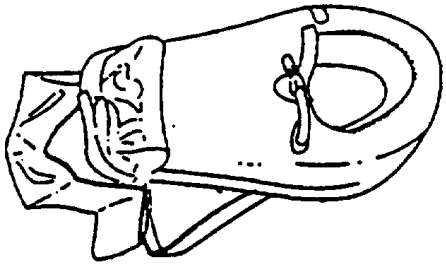
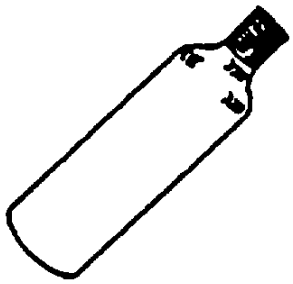
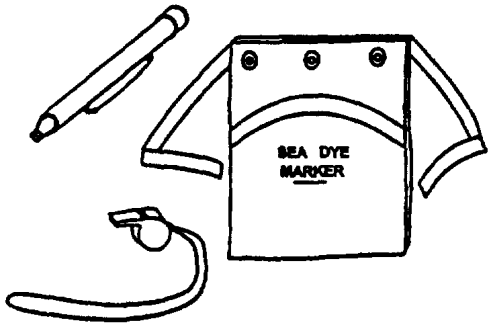
COMPONENTS LIST (Cont.)

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **SSRI**

ITEM NO		QTY	ITEM NO		QTY
20.	NOMENCLATURE OR DESCRIPTION: **PANASONIC CF–19 LAPTOP** NSN: **7010–01–592–4370** PN: **CF–19GHY52AM** DWG OR SPEC NO: **7019743** CAGE: **61058** INSTALLED LOCATION: **WORKSTATIONS 1 THRU 6** STOWED LOCATION: **NA** WEIGHT:  KIT CONSISTS OF:	6		NOMENCLATURE OR DESCRIPTION: **EXTERNAL DVD ROM DRIVE** NSN: **7025–01–592–4396** PN: **PADVW010U** DWG OR SPEC NO: **7019488** CAGE: **4E210** INSTALLED LOCATION: **CONNECTED TO ITEM 20** STOWED LOCATION: **NA** WEIGHT: 	6
	NOMENCLATURE OR DESCRIPTION: **HARD DRIVE, SOLID STATE** NSN: **7025–01–592–4387** PN: **O261–7644** DWG OR SPEC NO: **7019412** CAGE: **01JA9** INSTALLED LOCATION: **IN ITEM 20** STOWED LOCATION: **NA** WEIGHT: 	6		NOMENCLATURE OR DESCRIPTION: **CF–19 COMPUTER POWER SUPPLY** NSN: **6130–01–581–3402** PN: **CF–AA1633A M1** DWG OR SPEC NO: **7019474** CAGE: **54473** INSTALLED LOCATION: **CONNECTED TO ITEM 20** STOWED LOCATION: **NA** WEIGHT: 	6

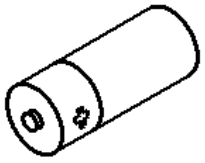
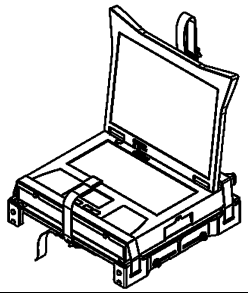
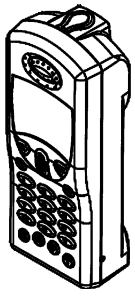
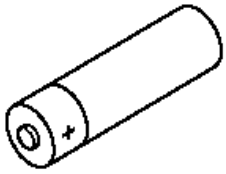
COMPONENTS LIST (Cont.)

GROUP: **VEHICLE** / SUPPLY CATEGORY: **SSRI**

ITEM NO		QTY	ITEM NO		QTY
21.	NOMENCLATURE OR DESCRIPTION: **LIFE PRESERVER, YOKE** NSN: **4220–00–268–9720** PN: **WD0100** DWG OR SPEC NO: **MIL–L–15581** CAGE: **1CJ91** TAMCN: **K45142E** INSTALLED LOCATION: **NA** STOWED LOCATION: **ANY SUITABLE INTERIOR SPACE** WEIGHT: **5.10 LBS**  **NOTE:** LIFE PRESERVER ACCESSORY KIT, ITEM #22 IS REQUIRED WITH EACH INFLATABLE LIFE PRESERVER.	6	23.	NOMENCLATURE OR DESCRIPTION: **CARTRIDGE, CARBON DIOXIDE** NSN: **4220–00–372–0585** PN: **TYPE 1** DWG OR SPEC NO: **MIL–PRF–25369** CAGE: **NA** INSTALLED LOCATION: **IN LIFE PRESERVER, ITEM #21** STOWED LOCATION: **NA** WEIGHT: **NA** 	**6**
22.	NOMENCLATURE OR DESCRIPTION: **LIFE PRESERVER ACCESSORY KIT (SEE SL–3–00681A)** NSN: **4220–00–025–9160** PN: **468** DWG OR SPEC NO: **SL–3–00681A** CAGE: **80372** INSTALLED LOCATION: **NA** STOWED LOCATION: **WITH ITEM #21** WEIGHT: **.75 LBS**  EACH KIT CONSIST OF: LIGHT, CHEMILUMINESCENT NSN: **6260–01–178–5559** WHISTLE, BALL NSN: **8465–00–254–8803** SEA MARKER, FLUORESCENT NSN: **6850–00–270–9986**	6			

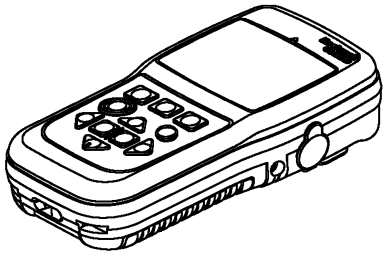
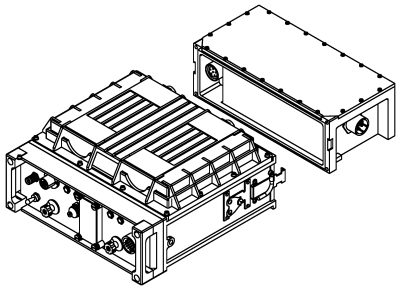
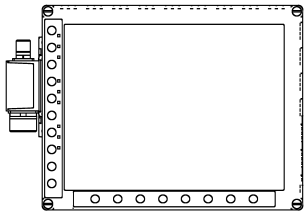
COMPONENTS LIST (Cont.)

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **EURI** (Cont.)

ITEM NO		QTY	ITEM NO		QTY
24.	NOMENCLATURE OR DESCRIPTION: **BATTERY, MEMORY STORAGE (LITHIUM)** NSN: **6135–01–435–4921** PN: **LS14250** DWG OR SPEC NO: **NA** CAGE: **7X364** INSTALLED LOCATION: **DAGR** STOWED LOCATION: **NA** WEIGHT: **0.50 OZ.** 	1	26.	NOMENCLATURE OR DESCRIPTION: **ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS)** NSN: **7021–01–529–6819** PN: **02–2781609–2AA** DWG OR SPEC NO: **NA** CAGE: **67032** INSTALLED LOCATION: **WORKSTATION 4** STOWED LOCATION: **NA** WEIGHT: 	1
25.	NOMENCLATURE OR DESCRIPTION: **IRIDIUM SATELLITE PHONE** NSN: **5965–01–544–0743** PN: **9505A** DWG OR SPEC NO: **NA** CAGE: **1R7A4** INSTALLED LOCATION: **MISSION COMMANDER AND WORKSTATION 4 POSITIONS** STOWED LOCATION: **NA** WEIGHT: 	2	27.	NOMENCLATURE OR DESCRIPTION: **BATTERY, PRIMARY STORAGE (LITHIUM)** NSN: **6135–01–333–6101** PN: **L91** DWG OR SPEC NO: **NA** CAGE: **81348** INSTALLED LOCATION: **DAGR** STOWED LOCATION: **NA** WEIGHT: **1.5 OZ.** 	4

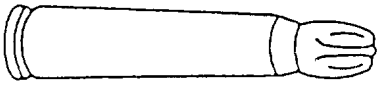
COMPONENTS LIST (Cont.)

GROUP: **COMMUNICATIONS** / SUPPLY CATEGORY: **EURI** (Cont.)

ITEM NO		QTY	ITEM NO		QTY
28.	NOMENCLATURE OR DESCRIPTION: **NAVIGATION SET, SATELLITE SIGNALS** NSN: **5825–01–526–4783** PN: **AN/PSN–13(A)** DWG OR SPEC NO: **AN/PSN–13(A)** CAGE: **80058** INSTALLED LOCATION: **VEHICLE COMMANDER STATION** STOWED LOCATION: **NA** WEIGHT: **1.00 LBS** 	1	30.	NOMENCLATURE OR DESCRIPTION: **RADIO SET AN/VSQ–2C(V)2** NSN: **5820–01–462–8411** PN: AN/VSQ–2(V)2 DWG OR SPEC NO: **NA** CAGE: 80063 INSTALLED LOCATION: **FORWARD PORT SIDE** STOWED LOCATION: **NA** WEIGHT: **1.5 OZ.** FOR COMPONENTS SEE: **SL–3 10656A** 	1
29.	NOMENCLATURE OR DESCRIPTION: **DISPLAY UNIT** NSN: **7025–01–526–5612** PN: **9800–07090–9007** DWG OR SPEC NO: **NA** CAGE: **1RWE7** INSTALLED LOCATION: **ON STATION 2** STOWED LOCATION: **NA** WEIGHT: 	1			

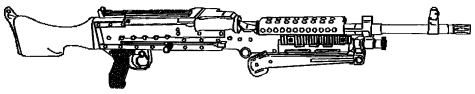
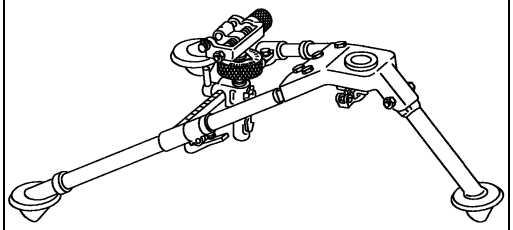
COMPONENTS LIST (Cont.)

GROUP: **AMMUNITION** / SUPPLY CATEGORY: **UURI**

ITEM NO		QTY	ITEM NO		QTY
31.	NOMENCLATURE OR DESCRIPTION: **CARTRIDGE, 7.62 MILLIMETER** NSN: **1305–00–892–2150** PN: **10522350** DWG OR SPEC NO: **DODIC–A–131** CAGE: **19200** TAMCN: ID NO: INSTALLED LOCATION: **NA** STOWED LOCATION: **STBD, FWD** WEIGHT: **NA** 	AR	32.	NOMENCLATURE OR DESCRIPTION: **CARTRIDGE, 7.62MM BLANK** NSN: **1305–00–752–8087** PN: **10521992** DWG OR SPEC NO: **DODIC–A–111** CAGE: **19200** TAMCN: ID NO: INSTALLED LOCATION: **NA** STOWED LOCATION: **NA** WEIGHT: **NA** 	AR

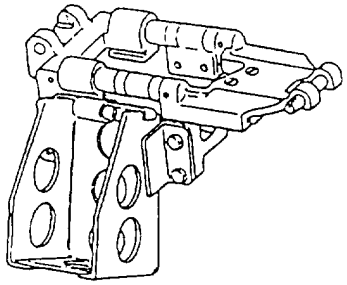
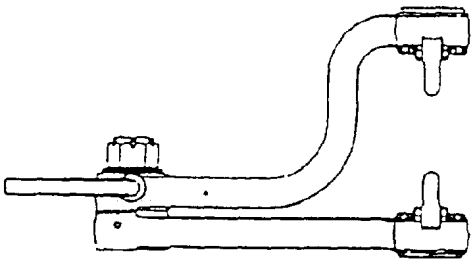
COMPONENTS LIST (Cont.)

GROUP: **ARMAMENT** /SUPPLY CATEGORY: **UURI**

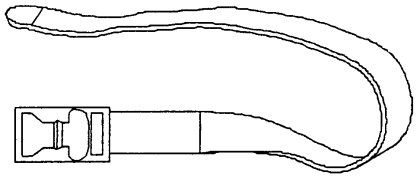
ITEM NO		QTY	ITEM NO		QTY
33.	NOMENCLATURE OR DESCRIPTION: **MACHINE GUN, 7.62MM, M240B** NSN: **1005–01–412–3129** PN: **12976814** DWG OR SPEC NO: **12977100** CAGE: **19200** INSTALLATION LOCATION: **DECK, AUXILIARY STATION** STOWED LOCATION: **AUXILIARY STATION**  **NOTE: THIS WEAPON IS A M240B MEDIUM MACHINE GUN AND SHOULD BE OPERATED AND MAINTAINED IN ACCORDANCE WITH TM 08670A–10/1 AND SL–3–09712.**	1	34.	NOMENCLATURE OR DESCRIPTION: **MOUNT, TRIPOD, M122A1** NSN: **1005–01–433–1617** PN: **12976948** DWG OR SPEC NO: CAGE: **19200** INSTALLED LOCATION: **NA** STOWED LOCATION: **M240 ACCESSORY BAG VEHICLE COMMANDER STATION** WEIGHT: 	1

COMPONENTS LIST (Cont.)

GROUP: **ARMAMENT** / SUPPLY CATEGORY: **CM**

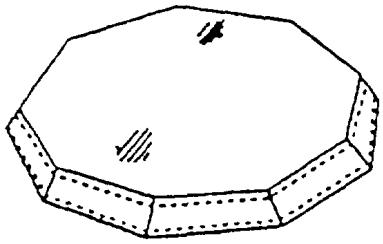
ITEM NO		QTY	ITEM NO		QTY
35.	NOMENCLATURE OR DESCRIPTION: **MOUNT, MACHINE GUN, M240** NSN: **1005–01–482–8990** PN: **7010068** DWG OR SPEC NO: **1259090** CAGE: **0MLM6** INSTALLED LOCATION: **M240B** STOWED LOCATION: **CABINET F** WEIGHT: 	1	36.	NOMENCLATURE OR DESCRIPTION: **MOUNT, MACHINE GUN, M240** NSN: **1005–00–287–6527** PN: **2624100** DWG OR SPEC N: **2624100** CAGE: **80064** INSTALLED LOCATION: **EXTERIOR, VEHICLE COMMANDER'S STATION** STOWED LOCATION: **AUXILIARY STATION** WEIGHT: **18.3 LBS** 	1

COMPONENTS LIST (Cont.)

GROUP: **VEHICLE** / SUPPLY CATEGORY: **CM** (Cont.)					
ITEM NO		**QTY**	**ITEM NO**		**QTY**
37.	NOMENCLATURE OR DESCRIPTION: **STRAP, WEBBING W/ BUCKLE** CAGE: **19207** DWG OR SPEC NO: **8690458 – 8690544** THE FOLLOWING STRAPS ARE REQUIRED FOR STOWAGE OF COLLATERAL EQUIPMENT: 				
	NSN: **5340–00–753–3742** PN: **8690471** LENGTH: **30 IN** • **ANTENNA, ITEM #9** • **MACHINE GUN MOUNT, ITEM #36**	2			
	NSN: **5340–00–339–3768** PN: **8690475** LENGTH: **42 IN** • **ACCESSORY GROUP, ITEM #34 (2)** • **ANTENNAS, ITEMS #7, #9, AND FOV**	5			
	NSN: **5340–00–958–6917** PN: **8690481** LENGTH: **60 IN** • **AMMUNITION, ITEM #31 (2)**	2			
	NSN: **5340–01–078–3808** PN: **8690539** LENGTH: **100 IN** • **WATER CANS**	1			

COMPONENTS LIST (Cont.)

GROUP: **BLACKOUT COVER** / SUPPLY CATEGORY: **CM**

ITEM NO		QTY	ITEM NO		QTY
38.	NOMENCLATURE OR DESCRIPTION: **CURTAIN, BLACKOUT** NSN: **7230–00–278–1064** PN: **2624830** DWG OR SPEC NO: **2624830** CAGE: **80064** INSTALLED LOCATION: **AUXILIARY HATCH** STOWED LOCATION: **IN TUBE HUNG FROM OVERHEAD** WEIGHT: **.7 LBS** 	1			

APPENDIX E

COMPONENTS INVENTORY SHEETS

(Supplement to Appendix E, TM 09674A–10/3)

(Pages E–2 thru E–4 may be reproduced locally, as required, and used for monthly inventory and/or inspection.)

AAVC7A1 COLLATERAL EQUIPMENT INVENTORY

Vehicle #_____

ITEM NO	STOCK NUMBER	ITEM IDENTIFICATION	UNIT OF MEAS	QTY USED IN UNIT	MONTH												REMARKS
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
1	5820–01–496–3523	Receiver–transmitter, radio RT–1694	ea	1													
2	6130–01–519–6013	Power supply RF–5850–PS001	ea	3													
3	5820–01–521–0291	Receiver–transmitter, radio RT–1796	ea	2													
4	5895–01–188–8819	Amplifier, Adapter	ea	3													
5	5895–01–544–0671	Tactical operations center intercommunications system (TOCNET), consists of:	ea	1													
	5895–01–544–8296	Enhanced micro central switching unit		1													
	5895–01–544–8314	Enhanced crew access units		7													
	5895–01–566–0958	Tactical radio intercom modular crew access unit		3													
	5935–01–592–5404	USB jack box		6													
6	5895–01–407–2627	Amplifier–frequency multiplier	ea	4													
7	5985–00–353–4943	Antenna VHF, AS–3916/VRC	ea	3													
8	5985–01–592–4346	Antenna VHF, AS–3916/VRC W/ GPS	ea	3													
9		Antenna kit for AAVC7A1, consists of:	ea	6													
	5985–01–422–8525	Adapter, antenna to antenna base	ea	1													
	5985–01–481–7038	Whip hold down bracket	ea	1													
	5985–00–733–6045	Antenna element	ea	1													
	5985–00–733–6044	Antenna element	ea	1													
	5985–00–733–6043	Antenna element	ea	1													
	5985–00–733–6042	Antenna element	ea	1													
	5985–01–516–7225	Whip end protector	ea	1													
	5985–01–481–7035	Base, antenna support, PLRS	ea	1													
10	5985–01–183–9462	Antenna EPLRS, AS–3449/ VSQ–1, consists of:	ea	1													
	5985–00–733–6043	Antenna element, PLRS	ea	1													
	5985–01–166–9128	Base, antenna support, PLRS	ea	1													
11	5985–01–597–9852	Antenna	ea	1													
12	5995–01–592–4917	Headset, Cable Assembly	ea	10													
13	4240–01–592–4913	Headset, microphone	ea	7													
14	5820–01–420–6619	Radio set, AN/VRC–89 See SL–3 09668B for components	ea	1													

AAVC7A1 COLLATERAL EQUIPMENT INVENTORY

Vehicle #_____

ITEM NO	STOCK NUMBER	ITEM IDENTIFICATION	UNIT OF MEAS	QTY USED IN UNIT	MONTH												REMARKS
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
15	5820–01–421–2605	Radio set, AN/VRC–92 See SL–3 09471B for components.															
16	7010–01–554–2707	Computer Set, Digital, Blue Force Tracker See TM 11–7010–326–10 for components.	ea	1													
17	7010–01–556–2028	V5 Data server	ea	1													
18	5895–01–468–1938	Satellite communications systems group OS–302\U See SL–3 10661A for components.	ea	1													
19	5820–01–462–8411	Radio set AN/VSQ–2C(V)2 See SL–3 10656A for components.	ea	1													
20	7010–01–592–4370	Panasonic CF–19 Laptop, consists of:	ea	6													
	7025–01–592–4387	Hard drive, solid state	ea	6													
	7025–01–592–4396	External DVD ROM Drive	ea	6													
	6130–01–581–3402	CF–19 Computer power supply	ea	6													
21	4220–00–268–9720	Life preserver, yoke	ea	6													
22	4220–00–025–9160	Life preserver accessory kit (SL–3–00681), consists of:	ea	6													
	6260–01–178–5559	Light, chemiluminescent	ea	1													
	8465–00–254–8803	Whistle, ball	ea	1													
	6850–00–270–9986	Sea marker, fluorescent	ea	1													
23	4220–00–372–0585	Cartridge, carbon dioxide	ea	6													
24	6135–01–435–4921	Battery, memory storage (lithium)	ea	1													
25	5965–01–544–0743	Iridium satellite phone	ea	2													
26	7021–01–529–6819	Advanced field artillery tactical data system	ea	1													
27	6135–01–333–6101	Battery, primary storage (lithium)	ea	4													
28	5825–01–526–4783	Navigation set, satellite signals	ea	1													

AAVC7A1 COLLATERAL EQUIPMENT INVENTORY

Vehicle # _____

ITEM NO	STOCK NUMBER	ITEM IDENTIFICATION	UNIT OF MEAS	QTY USED IN UNIT	MONTH												REMARKS
					JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
29	7025–01–526–5612	Display Unit	ea	1													
30	5820–01–462–8411	Radio set AN/VSQ–2C(V)2 See SL–3 10656A for components.	ea	1													
31	1305–00–892–2150	Cartridge, 7.62 mm (DODIC–A–131)	ea	AR													
32	1305–00–752–8087	Cartridge, 7.62 mm (DODIC–A–131)	ea	AR													
33	1005–01–412–3129	Machine Gun, 7.62mm, M240B	ea	1													
34	1005–01–433–1617	Mount, tripod, M122A1	ea	1													
35	1005–01–482–8990	Mount, machine gun, M240	ea	1													
36	1005–00–287–6527	Mount, machine gun, M240	ea	1													
37		Strap, Webbing W/ Buckle, consists of:															
	5340–00–753–3742	Straps, Webbing, 30 inches	ea	2													
	5340–00–339–3768	Straps, Webbing, 42 inches	ea	5													
	5340–00–958–6917	Straps, Webbing, 60 inches	ea	2													
	5340–01–078–3808	Straps, Webbing, 100 inches	ea	1													
38	7230–00–278–1064	Cover, blackout	ea	1													

APPENDIX F

APU OPERATIONAL CHECKLISTS

(The operational checklists provided in this appendix may be reproduced locally for daily use.)

APU OPERATION CHECKLIST	Serviceable	Unserviceable	Missing	On ERO	REMARKS
a. BEFORE STARTING APU.					
(1) Open and secure intake grille (See TM 09674A-10/3).					
(2) Open APU exhaust cover.					
(3) Remove APU top enclosure cover by removing eight thumbscrew clamps from cover.					
(4) Check oil before starting APU by removing oil dip stick from the APU engine.					
(5) Check V-belt for looseness.					
(6) Check exterior of APU for cooling, fuel, and oil leaks.					
(7) Check cable connections and hose clamps for security.					
(8) Check APU cooling system fluid sight glass for presence of coolant.					
(9) After all checks are done reinstall APU top enclosure cover using eight thumbscrew clamps.					
b. STARTING APU.					
(1) Ensure vehicle fuel valve is in the “ON” position and fuel switch is in the “OFF” position.					
(2) Turn vehicle power on.					
(3) If ambient temperature is high allow cooling fan to run for three minutes minimum prior to starting APU.					
(4) Start APU by placing the power switch on the APU remote control panel up to “IGNITION” position. The “IGNITION” light should illuminate.					
(5) Select the starter toggle switch to the “ON” position.					
(6) Press and release the “START” button (6) to start the engine (do not hold button down). The starter will automatically disengage and stop when the engine starts.					
c. DURING APU OPERATION					
(1) Check the APU idles properly.					
(2) Check APU area for fuel, coolant, or oil leaks.					
(3) Check exhaust. Check for leaks and ensure the exhaust remains colorless.					
(4) Immediately shut down APU if:					
(a) Engine suddenly slows down.					
(b) Engine suddenly accelerates.					
(c) Engine makes unusual noises.					
(d) Exhaust becomes dark.					
(e) Oil pressure and/or the water temperature lamp lights illuminate.					

APU OPERATION CHECKLIST	Serviceable	Unserviceable	Missing	On ERO	REMARKS
d. APU SHUTDOWN PROCEDURES					
(1) Allow APU to run unloaded for two minutes before shutdown.					
(2) Place the starter toggle switch (5) on the remote control panel (2) to the “OFF” position.					
(3) Place the position power switch (1) to the “OFF” position.					
(4) Close APU exhaust cover (step a.).					
e. AFTER APU OPERATION					
(1) Open and secure intake grill.					
(2) Remove top enclosure cover by removing eight thumbscrew clamps.					
(3) Check the following fluid levels:					
(a) Engine Oil.					
(b) Engine Coolant					
(4) Check for coolant, fuel, and oil leaks.					
(5) Reinstall APU top enclosure cover using eight thumbscrew clamps.					
(6) Close intake grille (See TM 09674A-10/3).					

INDEX

INDEX